



THE UNIVERSITY OF
BUCKINGHAM

**‘If the Invader Comes’: An Evaluation of the Readiness
of the British Army in the South-East of England to
Repel a German Invasion between June and
September 1940**

By

Jonathan Skan

A Thesis Submitted for the Degree of
Doctor of Philosophy in the University of Buckingham

April 2022

Student No: 1803306

Abstract

Despite the extensive historiography of all aspects of Great Britain's military operations in 1940, the question as to how well prepared the Army was to resist an invasion in the late summer of that year remains under-explored. To rectify this omission, this study has assessed the fighting capability of the specific front-line formations of the Home Forces that would have been tasked with repelling an invasion of Kent and Sussex in September 1940. This has been done through the lens of the modern British Army's 'Model of Fighting Power'. The Model's framework has enabled an assessment of morale, leadership, manpower, training, equipment and fighting doctrine. This has been combined with an analysis of the capability of the Royal Air Force to provide adequate tactical air support over the countryside of the south-east of England – at a time when Fighter Command was fully occupied fighting The Battle of Britain.

The results show that the true fighting capability of these front-line Army formations in September 1940, be they the General Headquarters (GHQ) Reserve (positioned well back from the coastline) or the troops defending Kent and Sussex, was far lower than has previously been acknowledged. Morale within those formations was 'mixed' as the invasion crisis peaked, as was the overall quality of their senior commanders – few of whom had commanded formations in battle. Furthermore, key weapons such as anti-tank guns remained in short supply, whilst transportation continued to be a challenge (given the losses in France) and tanks that could be described as 'modern' were still relatively thin on the ground.

Furthermore, despite a major training effort in the summer of 1940, the ability of these forces to conduct the (relatively new) fighting doctrine of mobile combined arms warfare was less than it needed to be. In short, the GHQ Reserve would have struggled to conduct the type of large-scale counter-attacks demanded by the Commander-in-Chief Home Forces, Lieutenant-General Sir Alan Brooke. In addition, the ability of the Royal Air Force to provide the tactical air support such counter-attacks would have required is shown to have been extremely limited. In truth the Army was being asked to fight in a way it was not yet capable of doing - something that became all too apparent during the two major combined arms anti-invasion exercises that Brooke organised in 1941.

Finally, down in Kent and Sussex, Brooke's edict that the linear defensive positions constructed by his predecessor, Lieutenant-General Sir Edmund Ironside, should be de-prioritised, was only partially adhered to by the formations within XII Corps. Furthermore, his aim of freeing up local forces to counter-attack an invader risked being undermined by their limited mobility and by the construction of an extensive mosaic of new 'all-round' defensive positions across the two counties, partly driven by local civilian defence authorities that would have tied down front-line troops even more. The idea that these positions could have been defended by either the Local Defence Volunteers or 'static' troops is shown to have been unrealistic at the time.

Thus, the view (often stated in the historiography) that Brooke was a significant upgrade on Ironside at the helm of the Home Forces as the invasion crisis reached its peak seems misplaced, even though he went on to be an outstanding Chief of the Imperial General Staff. Crucially, the notion (implied by the Government) that, in the event of an invasion, the Army would have repelled a significant German beachhead in September 1940 is shown to have been even more optimistic than many have hitherto thought. Sadly, the defects in the British Army that had been exposed so cruelly in Norway and then in France were a long way from being resolved by the time the invasion crisis peaked.

Contents

Introduction.....	1
Chapter 1 – The Moral Component	
Morale.....	28
Leadership.....	64
Chapter 2 – The Physical Component	
Manpower.....	92
Equipment.....	103
Training.....	160
Chapter 3 – The Conceptual Component	
The general development of British Army doctrine by 1940.....	183
Implications of the wider military/strategic situation for the execution of a combined arms doctrine.....	203
The manifestation of fighting doctrine on the ground.....	220
Flexible pragmatism or a backward step? An assessment of Ironside’s original plan	246
Conclusions.....	256
Appendix I – The Order of Battle, XII Corps and the GHQ Reserve in September 1940.....	262
Appendix II – Equipment Levels in <i>Their Finest Hour</i> for XII Corps and the GHQ Reserve as of September 1940.....	269
Appendix III – Number of ‘Modern’ Tanks as of September 1940.....	270
Appendix IV – Location of ‘Modern’ Tanks’ as of September 1940.....	272
Bibliography.....	273

Introduction

Late on the night of 7 September 1940, church bells rang throughout Kent and Sussex. The cause was a signal containing the codeword ‘Cromwell’, that had been sent to both Eastern and Southern Commands by Lieutenant-General Sir Alan Brooke, the Commander-in-Chief Home Forces. It indicated that an invasion was considered imminent. The alert was doubtless received in many quarters with considerable trepidation and perhaps none more so than at Eastwell Park, the headquarters of 1st (London) Division, a formation tasked with the defence of the entire Kent coastline. Had the warning turned out to be correct, this second-line territorial division would have found itself centre-stage in a battle in which it was expected to fight to the last man and the last round. Indeed, its General Officer Commanding, Major-General Claude Liardet, (who had previously had a career in the Lloyds Insurance Market), could have been forgiven for having significant doubts as to whether his forces, even when coupled with those in next-door Sussex, had the capability to repel a determined German invader.

Most of the war diaries of the Army formations within Eastern and Southern Command note the arrival of the ‘Cromwell Alert’ that night. Not surprisingly, it triggered a rush of activity. Many formations, especially armoured units in the GHQ Reserve, took to the road and drove to pre-arranged rendezvous-points, or loaded their tanks onto waiting trains in the Dorking area as they had rehearsed countless times. Many infantry units boarded trucks or requisitioned buses and then took to the roads as planned, while others ‘stood to’ on beaches all night or waited at bases inland ready to move at a moment’s notice. Even as far from the south-east coast as Monmouth, private Norman Craig from the 18th Battalion, The Welch Regiment, was shaken from his bed in the early hours of the morning by the sound of footsteps pounding up and down the stone corridors. Once dressed he found that ‘in quiet corners hoary corporals primed grenades with unconvincing nonchalance’, as his unit formed up and then marched off into the darkness towards Hereford and its ‘alarm positions’.¹ In addition to numerous false reports of German parachutists landing, other more worrying news began to come through as the hours ticked by. For instance, 42 Royal Tank Regiment, as it waited for orders on Salisbury Plain with its infantry tanks received a message (presumably sent across Southern Command) that simply read, ‘Large numbers of enemy and unidentified ships proceeding towards the Isle

¹ Norman Craig, *The Broken Plume: A Platoon Commander’s Story, 1940-1945*, (London: The Imperial War Museum 1982), pp. 19-20.

of Wight'.² Thus for these formations, the invasion was not merely seen as likely but was actually underway - until that is, some hours later, the sightings were revealed to have been an error.

The next day, with the forces of Eastern and Southern Command still at the highest state of alert, General Sir Alan Brooke was in a sombre mood. Having only been in charge of the Home Forces since the end of July 1940 and clearly having concerns about the overall capability of his force, he confided to his diary that he wished he had 'more adequately trained formations under my orders'.³ A week later, on 15 September, as the highest state of alert continued, Brooke again turned to his diary noting this time how trying the suspense of waiting was, especially when 'one is familiar with the weakness of our defence'.⁴ Interestingly, he went slightly further in his original hand-written diary that day, noting that only half of his forces were 'suitable for any form of mobile operation'.⁵ When his diary was being prepared for publication in the early 1950s, Brooke added numerous footnotes to his original entries. Those he inserted for both 8 September and 15 September make it clear that, although he was sure an invasion was coming and that the land forces he had at his disposal 'fell far short of what I felt was required', he nevertheless did not consider the situation to be hopeless. He also made the point that if his diary in 1940 had sometimes been very frank, this was partly because it was the only place that could act as an 'outlet for such doubts'.⁶ That said, it would be fair to say that the Commander-in-Chief Home Forces, in September 1940, had significant reservations about whether an invader could be repelled as the perceived invasion crisis reached its peak.

He was not alone. At a meeting of the Chiefs of Staff Committee on 4 September 1940, the Chief of the Naval Staff is on record as stating that if the Germans were to capture Dover and its shore batteries, they could create a relatively safe corridor across the Channel which the Navy would struggle to deal with. He also noted that, if Germany could get a solid footing in this country and even a moderately secure supply line, 'there might really be a chance of an invasion

² London, The National Archives (TNA), WO 166/1415, war diary of 42nd Royal Tank Regiment, 1 September 1939 – 31 March 1941, entries for 7 and 8 September 1940.

³ *War Diaries 1939-1945, Field Marshal Lord Alanbrooke*, ed. by Alex Danchev and Daniel Todman, (London: Weidenfeld & Nicolson, 2001), entry for 8 September 1940.

⁴ *Ibid.*, entry for 15 September 1940.

⁵ London, Liddell Hart Centre for Military Archives (LHCMA), 5/1, Original handwritten diaries of General Sir Alan Brooke, entry for 15 September 1940.

⁶ *War Diaries, Alanbrooke*, footnote to entry for 15 September 1940.

succeeding'.⁷ Furthermore, this came on top of the acknowledgement by the Chiefs of Staff as early as July 1940 that, in truth, the Germans did not necessarily need to achieve air superiority in order to 'throw in the whole of the resources at their command and to get ashore considerable numbers of troops'.⁸ In summary then, most of the nation's senior military leaders were under no illusions as to the degree of peril that Great Britain faced.

For one whole year, from the evacuation of the British Expeditionary Force from France until the launch of Operation Barbarossa in June 1941, Great Britain lived under what many considered to be a very real threat of invasion. The shock felt by ordinary people as troops returned from Dunkirk is well summed up by a memoir written by the author and housewife, Margaret Kennedy, who noted that 'The idea that we could possibly be beaten was something for which our minds were totally unprepared. It took our breath away'.⁹ Throughout the summer the perceived threat waxed and waned in the views of the general population but, by 7 September, the situation was universally seen as altogether more threatening, not least because the Battle of Britain was reaching a climax, the Blitz (a perceived prelude to invasion) had started and irrefutable photographic evidence had emerged of an invasion fleet in the channel ports of occupied Europe.¹⁰ The sense of impending threat is evidenced by a report to that day's Chiefs of Staff Committee by the Joint Intelligence Sub-Committee which concluded that, 'Our evidence of German preparations points to an intention to invade the United Kingdom'.¹¹ During the meeting, having discussed his report with the Chiefs of Staff, the minutes reveal that the Director of Military Intelligence, Major-General Beaumont-Nesbit, went further, stating that 'The possibility of immediate invasion now existed'.¹² Margaret Kennedy, at her home in Surrey, was doubtless one of the 15 million householders who had by now received a leaflet entitled, *If the Invader Comes*, outlining what to do if German forces

⁷ TNA, CAB 80/17, War Cabinet; Chiefs of Staff Committee, Memoranda 701-750, C.O.S. (40) 711, Memorandum by the Chief of Naval Staff, *Invasion: Vital Importance of Dover Area*, 4 September 1940.

⁸ TNA, CAB 79/5/30, War Cabinet, Chiefs of Staff Committee minutes, 3 July 1940.

⁹ Margaret Kennedy, *Where Stands a Wingèd Sentry*, (Bath: Handheld Press, 2021- first published in 1941).

¹⁰ Leo McKinstry, *Operation Sea Lion*, (London: Hachette, 2104), p. 415.

¹¹ TNA, CAB 80/18/1, War Cabinet; Chiefs of Staff Committee, Memoranda Nos.701-750, C.O.S (40) 721, Report by the Joint Intelligence Sub-Committee, *Possible German Action Against United Kingdom*, 7 September 1940.

¹² TNA, CAB 79/6/50, War Cabinet; Chiefs of Staff Committee, Minutes of meeting on 7 September 1940, Paper from the Director in Intelligence at the War Office entitled; *Possible German Action Against the UK*. Also, for a full description of the intelligence considered by the Joint Intelligence Sub-Committee in September and October 1940, see; F. H. Hinsley, *British Intelligence in the Second World War (Abridged Version)*, (London: HMSO, 1993), Chapter 3, The Threat of Invasion, The Battle of Britain and the Blitz.

arrived.¹³ Most recipients had presumably read it with anxiety well before Sir Winston Churchill broadcast direct to the nation on 11 September 1940 warning that an invasion attempt was now likely at any time. Furthermore, on 17 September, he gave a secret briefing to members of the House of Commons at which, having summarised the scale of the enemy invasion fleet waiting across the channel, he insisted that Britain's forces would defeat 'this tremendous onslaught', but also felt bound to add that 'whatever happens, we will all go down fighting to the end'.¹⁴

The perceived threat continued throughout the winter of 1940/41, with the challenges of potentially rougher seas being offset by longer nights and the likelihood of fog that, it was feared, would allow an invasion fleet to remain undetected until very close to English shores.¹⁵ The perceived threat then rose sharply in the Spring of 1941, when some 44% of those asked still thought an invasion 'very likely', according to a Mass Observation poll.¹⁶ Indeed, both the Foreign Office and British Military Intelligence were convinced that Hitler would elect to invade Great Britain in early 1941, before making any further military incursions to the east.¹⁷ In short, the prospect of an invasion, particularly in September 1940, became, as Mark Rowe puts it, something of a 'national obsession'.¹⁸

However, whether the British Army would have been able to repel such an invasion attempt in September 1940 has remained under-explored until relatively recently. This is surprising at two levels. Firstly, the (well-documented) British Expeditionary Forces' losses from its three weeks of fighting withdrawal to the beaches of Dunkirk had left the Army severely depleted. In addition to over 4,000 killed, 52,000 missing and almost 17,000 wounded, equipment losses were substantial. They included 60% of the army's total complement of anti-tank guns, 55% of its artillery and 47% of its tanks. In addition, 63,900 lorries did not return from France at a time when the national production capability per year was only some 90,000 military trucks.¹⁹

¹³ Ministry of Information publication, (in cooperation with the War Office and the Ministry of Home Security), *If the Invader Comes*, June 18 1940.

¹⁴ 'A Statement to the House of Commons, September 17 1940', in Charles Eade, comp., *Secret Session Speeches by Winston Churchill*, (London: Cassell & Co., 1946).

¹⁵ TNA, WO 199/569, Paper by General Alan Brooke (Cic Home Forces); *The Home Defence Situation, Winter 1940*, 27 November 1940, p. 2.

¹⁶ Robert Mackay, *Half the Battle, Civilian Morale in Britain in the Second World War*, (Manchester: Manchester University Press, 2002).

¹⁷ Francis Hinsley, *British Intelligence in the Second World War (Abridged)* (London: HMSO, 1994), pp. 88-98.

¹⁸ Mark Rowe, *Don't Panic – Britain Prepares for War, 1940*, (London: The History Press, 2010), p. 215.

¹⁹ Robert Forczyk, *We March Against England 1940-41: Operation Sea Lion*, (London: Osprey Publishing, 2016), p. 22-23.

Secondly, repelling an invasion would have required the capability to counter-attack with pace and determination against a highly-professional army and air force that, just months before in France, had overpowered and outmaneuvered the British and French Armies with relative ease. The lack of analysis of this issue by historians is also surprising given how frank many senior individuals were at the time (albeit privately), about how bad things were immediately after Dunkirk. General Ironside, for example, who was in charge of all Home Forces until the end of July 1940, noted in his diary that ‘Every portion of coast I look at seems weaker than the last and the troops less trained’.²⁰ And when on 29 June, Anthony Eden, Secretary of State for War, visited the south coast, he reported back to Churchill that ‘There is no anti-tank regiment or anti-tank gun in the whole of the [XII] Corps area’.²¹

In the four months from June to September 1940 a huge manufacturing effort meant that the acute (and well-documented) equipment shortages following Dunkirk had eased a little. And the same national effort had produced greatly upgraded coastal and inland defences. But, the overall capability of the Army’s forces in the UK by that September has been under-explored, not least in the south-east where an invasion would most likely have taken place. The government’s narrative at the time as expressed that summer in the pamphlet *If the Invader Comes*, made it very clear that any invasion attempt would be, ‘...driven out by our Navy, our Army and our Air Force.’²² Furthermore, on 4 September, following an upbeat speech that Sir Anthony Eden made to The National Defence Public Interest Committee on the tasks confronting the Army after a whole year of war, *The Times* noted the Secretary of State’s comment that: ‘The Army, in spite of its present imperfections...was fully competent to deal with imminent dangers’.²³ Although these unequivocal statements were understandable given the situation, were they realistic? Indeed, was Churchill’s statement after the war in *Their Finest Hour* that, by the second half of September ‘we were able to bring into action on the south coast front...some sixteen divisions of high quality of which three were armoured divisions of their equivalent in brigades...’, a realistic and truthful presentation of the situation

²⁰ *Time Unguarded; The Ironside Diaries, 1937-1940*, ed. by Roderick Macleod and Denis Kelly, (New York: David Mackay Co, 1962), p. 340.

²¹ Donald Lindsay, *Forgotten General, A life Of Andrew Thorne*, (London: Michael Russell, 1987), p. 141.

²² Ministry of Information publication, (in cooperation with the War Office and the Ministry of Home Security), *If the Invader Comes*, June 18 1940.

²³ Editorial, ‘The Task of the Army’, *The Times*, 4 September 1940, p. 5.

back in the summer of 1940?²⁴ This study will argue that these official utterances were highly optimistic to the point of being willfully misleading.

Brooke, as it turns out, was not the only one to express private doubts about the capability of many Army formations by September 1940. Sir Auckland Geddes, the Commissioner for Civil Defence for the South-East Region (who had been Britain's Ambassador to the United States in 1919) wrote, in a private note dated September that 'The Army's worries me most...its supply position is bad...and its tanks are puerile'.²⁵ Indeed, given how much has been written by historians about most aspects of Britain's 'Darkest Hour' in 1940, it is interesting that more has not been said about the British Army's true capability during the invasion crisis. By contrast the Battle of France, Dunkirk, the Battle of Britain and the Blitz have all been examined in consummate detail. In addition, Germany's plan to invade Great Britain, Operation Sea Lion, which was finally scheduled to be launched in late September 1940, has also been investigated at length. However, the question of what resistance the German Army might have faced had it landed on these shores has been relatively ignored. This is a surprising omission given that Britain's front-line troops would have faced an enemy that had already proved itself to be formidable in France and which would have most likely been hard to dislodge, had it established a bridgehead.

Therefore, this study will address as its primary research question; what the true readiness of the British Army in the south-east of England was to repel a German invasion between June and September 1940. This will be done by examining the formations that would have been at the forefront of repulsing such an invasion of Kent and Sussex. These comprised XII Corps (guarding the coastline of these two counties), along with the mobile forces of the GHQ Reserve, which contained not just several infantry divisions but also all the nation's armoured formations. These forces will be outlined in more detail shortly and are also summarised (as of September 1940) in Appendix I.²⁶

²⁴ Winston Churchill, *The Second World War: Volume II, Their Finest Hour*, (London: Cassell & Co., 1949), p. 262.

²⁵ Cambridge, Churchill College Archives (CCA): Gedd 7/2 1009, note by Sir Auckland Geddes, dated 25 September 1940.

²⁶ Appendix I: The Order of Battle of XII Corps and the GHQ Reserve in September 1940.

The capability of all these forces will be examined through basic structure of the contemporary British Army's 'Model of Fighting Power'.²⁷ According to the British Army's Doctrine Publication (AC71940), 'Fighting Power' is a concept that describes the operational effectiveness of armed forces and that 'the concept guides force development and preparation'. It also makes it clear that 'Fighting Power' is closely connected to readiness in that the more complete the various elements are, the higher the level of overall readiness to fight. The three components of the Army's 'Model of Fighting Power', around which this study will be structured, are summarised as follows:

1. The Moral Component

This, according to the Model, is the 'human aspect of Fighting Power'. It is primarily focused upon Morale and Leadership.

(a) Morale

This includes several component elements, such as, 'Fighting Spirit', i.e., courage, resilience, and determination, along with discipline – the glue that holds soldiers together when threatened. It also comprises 'comradeship' – which the model views as the basis of moral cohesion, with friendship and mutual trust being the key to enduring fear and privation. It furthermore encompasses pride in oneself and ones' unit, confidence in equipment, and in the continuance of living conditions, rations, and medical provision. Finally, 'morale' also includes 'spiritual foundation', i.e., a shared belief that the cause is worth fighting for.

(b) Leadership

The ability to get people to fight and is central to the Moral Component. Leaders have to demonstrate professional competence but can also lead people to achieve tasks, develop individuals and build effective teams. In battle, good leaders break the paralysis of shock and fear and pave a way through chaos and confusion.

²⁷ For a full description of the British Army's Model of Fighting Power, see: Land Operations, and Warfare Development Centre, British Army Doctrine Publication, AC 71940, Chapter Three, Fighting Power.

2. The Physical Component

This involves the means to operate and fight, and comprises the three key elements of Manpower, Equipment and Training – defined as follows:

- (a) **Manpower** The ability to attract and retain the right people with the right skills.
- (b) **Equipment** The availability of equipment that meets operational requirements.
- (c) **Training** The provision of training that is continuous, challenging, realistic, has clear objectives and is reflective of operational doctrine.

3. The Conceptual Component

This is the intellectual basis of ‘Fighting Power’. It guides the Physical and Moral components and is primarily focused upon the two elements of Doctrine and Flexibility, defined as follows:

- (a) **Doctrine** The knowledge, understanding and application of ‘doctrine’ – i.e., the philosophy and principles that underpin how to operate and fight and the ability to apply them pragmatically rather than by prescription. Some of this will be down to previous experience and the ability to learn lessons from it. Furthermore, doctrine is broadly categorised as either higher level or lower level – the former establishing the philosophy and principles that underpin the approach to military activity, whilst the latter focuses upon the practices and procedures required for the effective employment of military forces.
- (b) **Flexibility** The ability to learn and adapt during conflict and to deal with complex and dynamic challenges. This requires a culture that nurtures initiative and innovation.

In line with the Model of Fighting Power, the subsequent secondary questions are answered in the main body of the thesis. They are follows:

What was the readiness of the British Army in the south-east of England to repel a German invasion between June and September 1940, in relation to the Moral Component of the Model of Fighting Power?

What was the readiness of the British Army in the south-east of England to repel a German invasion between June and September 1940, in relation to the Physical Component of the Model of Fighting Power?

What was the readiness of the British Army in the south-east of England to repel a German invasion between June and September 1940, in relation to the Conceptual Component of the Model of Fighting Power?

Each of these questions forms the basis for one chapter within the main body of the study. Furthermore, the ability of the Royal Air Force to provide the three Army corps with tactical air support in the event of an invasion will also be examined within each of the three chapters, given that the Army's capability to repel an invasion would have been severely diminished without such support.

In terms of definitions at the time relating to air support, these broke down into three categories.²⁸ The first related to so-called, 'Army Cooperation', i.e., reconnaissance, adjustment of artillery fire and air transport. The second element was known as 'direct support', that referred to the attacking of enemy columns and troop concentrations etc. The third component, 'close support', referred to the dropping of bombs on an actual battlefield in support of troops. Such tactical air support, in whatever category it fell, was important for many reasons not least the fact that the British Expeditionary Force had been both hugely impressed at the support the German Army received from the Luftwaffe during its campaign in France and Flanders, and singularly unimpressed with the air support its own forces had received from the Royal Air Force, especially during the retreat to Dunkirk. However unfair much of this criticism has since proved to have been, one of the key conclusions of the subsequent Bartholomew Report was that Army formations in France had been put at a severe disadvantage by the Luftwaffe's prowess both at responding to calls for air support in 'less than 25 minutes', and at concentrating, 'significant aircraft on one objective at a time'.²⁹ None of this was unexpected. Brooke, who commanded II Corps in France, made it clear in his diary that even before the German attack in the west he was all too aware of the Luftwaffe's

²⁸ Hall, David, *Strategy for Victory: The Development of British Tactical Airpower, 1919 – 1943*, (Connecticut: Praeger Security International, 2008), p. 32.

²⁹ TNA, CAB/106, Final Report of the Bartholomew Committee on Lessons to be Learnt from the Operation in Flanders.

proficiency at tactical cooperation with the German Army, should an attack materialise. He also concluded that the Air Force was more committed to its strategic goal of bombing the Ruhr in the event of hostilities than providing ground support to the field army.³⁰ It is thus not surprising that in the wake of the Battle of France, the Army's expectations surrounding the tactical air support it should receive in the event of an invasion only grew in the summer of 1940. Not only had the Bartholomew Report argued that the Army needed its own dedicated tactical air support capability but, shortly after he took over command of the Home Forces at the end of July 1940, Brooke stated that a closer working relationship with the Royal Air Force was crucial. At his first meeting with the Commanders-in-Chief of each of the Regional Commands in early August 1940, he was explicit about the need to 're-cast our ideas on Army and Air Cooperation'.³¹

He also told those attending that he had requested the development of a brand new type of aircraft not yet in existence within the Royal Air Force - a dive bomber that could achieve a speed of 300mph at 5,000ft, with armour to protect its glycol tanks and either two 20mm Hispano cannons or four 250lb bombs. Brooke also announced that aircraft meeting this specification would arrive from the United States early in 1941 – and would be for the Army's exclusive use.³² It is a mark of just how important this new aircraft was perceived by the War Office that the then Secretary of State for War, Anthony Eden, wrote personally to the Secretary of State for Air, demanding to know what was happening to meet the Army's requests for the Air Force to acquire these aircraft even quicker.³³ Yet, despite all his efforts, six months later in December 1940 Brooke was to record in his diary that the state of Army and Air Force co-operation remained, 'A deplorable situation as regards any cooperation generally'.³⁴ In summary, there is little doubt that the ability of XII Corps and the GHQ Reserve to repel an invasion would have been impacted by a relative lack of tactical air support – a conclusion that is also strongly supported by the historiography. The causes of this deficit and the wider reasons why the Royal Air Force lacked what might be called a 'tactical support doctrine' in the summer of 1940, thus this need examining.

³⁰ *War Diaries, Alanbrooke* entry for 28 January 1940.

³¹ TNA, WO 166/1, Home Forces GHQ, September 1939 to December 1940, minutes of the Commander-in-Chief Home Forces' Conference, 6 August 1940.

³² *Ibid.*

³³ TNA, WO 106/5151, Letter from the Secretary of State for War to the Secretary of State for Air, July 1940.

³⁴ *War Diaries, Alanbrooke*, entry for 9 December 1940.

Historiography

Robust assessments by historians of the true adequacy of the British Army's 'Fighting Power' and thus its capability to resist an invasion in the late summer of 1940, are thin on the ground. Furthermore, no historian has specifically investigated the capability of the three Army corps that would have been tasked with repelling an actual landing. Indeed, the true capability of the Home Forces more generally between the immediate aftermath of Dunkirk and the height of the perceived invasion threat in September 1940, has been somewhat ignored by historians according to one of the more recent and 'revisionist' accounts written in 2016 by Robert Forczyk. In his words; 'Except for Fighter Command, Britain's defences in September 1940 have received scant attention in the existing historiography'.³⁵

In the immediate aftermath of the war, the tone for any assessment of how capable the Home Forces were was set by Winston Churchill's own (somewhat upbeat) interpretation of events, as noted earlier. However, most historians since then tell an increasingly more sanguine story of how Britain moved from being relatively unprepared for invasion in June 1940 to being in a better (but still precarious) situation by September 1940 thanks to a 'national effort' to address shortages of trained troops, equipment, tanks, artillery, anti-tank guns and transport, not to mention the improvements made to coastal and inland defences. There have been innumerable histories of the German plans to invade (Operation Sea Lion) and Britain's physical preparations to resist invasion (e.g., beach defences and fortifications) have also been well-documented. The focus of many historians has been to explore why the German plan was never carried out, or what might have happened if it had been launched. As a result, the fighting capability of the British troops that would have opposed an invasion has been (relatively) neglected, beyond looking at tangible things such as equipment levels and in particular, the numbers of tanks, artillery, anti-tank guns and transport, etc. Much less has been written about the more qualitative aspects of capability such as, the morale of the troops concerned, their training, the quality of the officers leading them or the 'fighting doctrine' they would have attempted to execute. These more qualitative elements are harder to assess, especially with the passage of time.

³⁵ Forczyk, *Operation Sea Lion*, p. 12 and p. 203.

Typical of what has been written to date are two comprehensive studies from the late 1950s, Richard Wheatley's, *Operation Sea Lion* and Peter Fleming's, *Invasion 1940*.³⁶ Both books focus upon the narrative of Operation Sea Lion, but neither historian delves in a meaningful way into the overall capability of the Army by September 1940 – doubtless partly due to the relative lack of available primary sources at the time. That said, both make the point that the capability of the Army in the South-East was undermined by the belief within Home Forces HQ that, as late as mid- September, the main assault might yet come on the East coast, given the lack of accurate intelligence.³⁷ These findings were largely echoed more recently in Leo McKinstry's insightful book, *Operation Sea Lion*. Although this is a rigorous analysis its central focus, like so many studies, is to examine why an invasion did not occur, rather than upon the likely true readiness of the Army to meet such a threat. Another important work within the historiography is the impressive (unpublished) thesis by the historian David Newbold.³⁸ This comprehensive and often-quoted study from 1996, deals directly with Britain's preparations to repel an invasion and clearly involved exhaustive research. But it is a very narrative-driven study and whilst it faithfully covers the tenures of the three different Commanders-in-Chief of the Home Forces up to September 1940, (Kirke, Ironside and Brooke), it fails to address a specific research question, despite being a meticulous study. Overall, he concludes that the Home Forces would have struggled to contain an invasion force had the German army managed to establish significant beachhead in September 1940. But his focus is predominantly upon just the Physical Component of 'Fighting Power', i.e., that which can be measured quantitatively.

There have been some credible studies by German historians too. Not surprisingly, these have devoted most of their investigative energy to the formation of the German plans for Operation Sea Lion in the summer of 1940 – with particular focus upon the disputes between the Kriegsmarine and the Army, the various iterations of invasion plans and the debate as to whether Hitler ever intended to invade at all. But, although the German historian Peter Schenk, in his book *Invasion Of England 1940* (which he dedicates to the people of Kent and Sussex) presents a detailed analysis of German preparations for a possible invasion, he undertakes little

³⁶ R. Wheatley, *Operation Sea Lion*, (Oxford: Clarendon Press, 1958) and Peter Fleming, *Invasion 1940*, (London: Rupert Hart-Davies, 1957).

³⁷ Wheatley, *Operation Sea Lion*, p. 174.

³⁸ Newbold, 'British Planning and Preparations to Resist Invasion on Land, September 1939 – September 1940', (unpublished doctoral thesis, University of London 1996).

by way of an assessment of the Home Forces that would have needed to be overcome.³⁹ Similarly, Egbert Kieser in his study emphasises the scale of the achievement in assembling such a huge invasion armada by mid-September 1940, but does not examine what an invading force would have come up against.⁴⁰ Furthermore, the authoritative study, *Germany and the Second World War* (originally published by The German Armed Forces Military Research Centre), contains no assessment of the capability of the Home Forces in the summer of 1940. That said, it does mention that a study was undertaken by the German High Command prior to May 1940 of the French, British, Belgian and Dutch forces.⁴¹ No details of the study are presented but the book reveals that the British field force in France (before fighting began) was calibrated as being of a 'very high quality'. One cannot help wondering whether the German High Command amended their assessment in the light of subsequent events. Interestingly the study also noted that both the British and the French had 'underestimated' the need for tactical air support and nor did either of them have an aircraft type that was specifically designed to deliver it.⁴²

Linked to the major histories of Operation Sea Lion are two books that attempt to examine the threat of invasion in terms of its more holistic impact upon Britain at the time. Michael Glover's, *Invasion Scare* usefully links many themes together - such as the mixed state of civilian morale in the summer of 1940 and the fact that the civilian population in Kent and Sussex remained substantial, even as September arrived.⁴³ Mark Rowe's study (published in 2010), covers similar ground but goes further by concluding that the Royal Air Force's lack of tactical air capability would have significantly reduced the ability of the Army to counter-attack once German troops were ashore.⁴⁴ However both authors stop well short of assessing the readiness of Britain's troops in September 1940 and neither focuses upon the troops based in the South-East of England.

Another relevant category concerns the many histories of the British Expeditionary Force, during the Battle of France and the subsequent Dunkirk evacuations. There have been countless such studies over the past thirty years, but few of them throw much light on the overall

³⁹ Peter Schenk, *Invasion of England 1940*, (London: Conway Maritime Press, 1990).

⁴⁰ Egbert Kieser, *Operation Sea Lion*, (Original edition, London: Cassell, 1997).

⁴¹ Klaus Maier, Horst Rohde, Bernd Stegemann, Hans Umbreit, *Germany and the Second World War, Volume II, Conquests in Europe*, (Oxford, Clarendon Press, 1991), p. 234.

⁴² *Ibid.*, p. 280.

⁴³ Michael Glover, *Invasion Scare 1940*, (London: Leo Cooper, 1990).

⁴⁴ Rowe, *Don't Panic, Britain Prepares for Invasion*.

‘Fighting Power’ of the Army in France - something relevant to this study as many of those same formations found themselves guarding south-coast beaches only days after their return. Hugh Sebag-Montefiore’s detailed book, *Dunkirk, Fight to the Last Man* makes numerous references to equipment shortages in France, the lack of training (especially for the territorial divisions) and the lack of capability to fight a fast-moving war.⁴⁵ But, he (and many others) focus upon the narrative of the increasingly chaotic events leading up to the withdrawal from France, rather than examining the wider questions about the capability of both the British Army and the Royal Air Force that came to light as a result. However, Edward Smalley’s 2015 book on the British Expeditionary Force goes much further, taking a more systematic and questioning look at training, communications, discipline and the capability of headquarters staff.⁴⁶ In addition to underlining that the real causes of the Army’s underperformance in France have to date received ‘scant recognition’, he concludes that the Battle of France highlighted some deeply entrenched flaws within the British Army that had resisted reform between the wars. In particular, he demonstrates that overall discipline in France, not just on the beaches of Dunkirk, was poor and he alleges that there was a subsequent lack of determination within the Army to learn lessons from the conflict. In his view, if troops in Kent and Sussex had been called upon to resist an invasion they would have fought using the same (discredited) fighting doctrine that they had followed in France in May 1940 – an assertion this study will investigate further in Chapter Three on the Conceptual component.

Smiley’s willingness to de-bunk some of the ‘Dunkirk myth’ is part of a wider trend of historians questioning various aspects of Britain’s ‘achievements’ in 1940, that appears to have begun with Clive Ponting’s iconoclastic 1990 study, *Myth and Reality 1940*.⁴⁷ In it, he describes the performance of the British Expeditionary Force in France as ‘lamentable’ and goes on to conclude (without much in the way of thorough analysis) that the Army was too poorly-equipped between June and September 1940 to have done more than hold up the advance of a German army, had it been able to establish a bridgehead in England. Furthermore, he argues that in addition to the lack of equipment, many units of soldiers guarding the coastline by then suffered from the same apathy and pessimism that (he claims) was also widespread within the civilian population of the UK. Crucially though, many of Ponting’s conclusions are not backed up by references to primary sources and so are difficult to validate.

⁴⁵ Hugh Sebag-Montefiore, *Dunkirk, Fight to the Last Man*, (London: Viking, 2006).

⁴⁶ Edward Smalley, *The British Expeditionary Force, 1939-1940*, (Basingstoke: Palgrave Macmillan, 2015).

⁴⁷ Clive Ponting, *Myth and Reality 1940*, (London: Hamilton, 1990).

Ponting's conclusions have though been endorsed by a recent and controversial study of Operation Sea Lion by Robert Forczyk, (referred to earlier). In addition to criticising many aspects of Winston Churchill as a leader, he disputes the ability of the Royal Navy to prevent either a landing on the south coast or the re-supply of those forces. He also goes further than any other historian to point out deep flaws within the Home Forces guarding the south-eastern coastline. In particular, he criticises not just the Army's equipment but also the quality of its officers, its training, its fighting doctrine and its severe lack of transportation and thus its mobility. In summary, his conclusion is that the British Army in September 1940 was, 'A cardboard force that was not capable of sustained ground combat against an experienced and well-trained opponent'.⁴⁸ However, as with Ponting, Forczyk does not present a rigorous case backed up with references to primary sources, to support this conclusion. This study will thus attempt to examine and to test some of his bolder assertions about the fighting capability of the British Army in late 1940 in greater detail. Another revisionist analysis was produced by Ian Lofting in his 2016 book.⁴⁹ This comprehensive (self-published) work sets out to assess the overall state of the nation's defenses in 1940. In examining this he looks across the different elements of the British Army after Dunkirk and focuses upon several areas of potential weakness for example, the Army's ability to absorb doctrinal lessons from the experience in France which he concludes was low. However, extensive though this study is, Lofting provides no references at all to primary sources to support his conclusions and his study also puts less emphasis upon the more qualitative aspects of the Home Forces' capability. For the sake of completeness, it should also be noted that, in 1974, a study was published entitled *Operation Sea Lion*, edited by Richard Cox.⁵⁰ This contains a summary of a war game of Operation Sea Lion that took place at the Staff College that year. Its findings make interesting reading but, in addition to all war games being counter-factual, the exercise makes no assessment of the fighting capability of the Home Forces. Furthermore, several of the assumptions upon which it was constructed have subsequently been questioned, not least by Robert Forczyk.

Another category amongst the secondary sources are histories commissioned by individual army units within the Home Forces— as opposed to their formal war diaries. One such history

⁴⁸ Forczyk, *Operation Sea Lion*, p. 223.

⁴⁹ Ian Lofting, *We Shall Fight Them. Defeating Operation Sea Lion: the British Armed Forces and the Defence of the United Kingdom*, (Sussex: Self-Published, 2016).

⁵⁰ Richard Cox, (editor), *Operation Sea Lion*, (London, Thornton Cox Ltd, 1974).

is a study of 1 (London) Division, the co-called 'Black Cats'.⁵¹ As noted earlier, this division, which would later fight at Cassino, was stationed in the front-line in Kent in September 1940 and would have borne the brunt of an invasion attempt. Sadly, this history (like many other regimental histories) contains little to help us assess 'Fighting Power', although it does record several prolonged equipment shortages in the summer of 1940 and the debilitating effects of having to 'stand- to' day after day for weeks on end. The impact of boredom upon morale and thus upon overall 'Fighting Power' will be explored further within this study.

A further component within the historiography concerns the work of historians who have explored the social history of what became a largely conscript army as 1940 unfolded. Their work has involved analyses of the leadership capability of junior officers, the training regime for officers in particular, the need for a more cohesive combined arms fighting doctrine and the need for broader reforms - all of which the campaigns in Norway and France highlighted. Prominent amongst them is David French's widely-acclaimed book, *Raising Churchill's Army*, along with an article he wrote in 1996 on the quality of officers in the British Army.⁵² In both he criticises poor levels of equipment in France as well as the (often difficult) relationships between junior officers and the 'new breed' of conscript soldier who was better educated and more questioning than his male relatives had been back in 1914. French's work also emphasises the lack of a cohesive military doctrine back in 1940 and, according to him, the indifferent quality of many older, senior officers. All these conclusions will be examined later in relation to XII Corps and the GHQ Reserve.

In Tim Harrison-Place's book on training in the British Army, he points out that the quality of tactical infantry training, both before and after Dunkirk, was lower than it needed to be.⁵³ He also concludes that the need to man beach defenses as the invasion crisis grew significantly reduced the time available for rigorous training for new young soldiers. There was, he claims, a growing sense within formations of the Home Forces throughout 1940 that they had been insufficiently trained to take on such a professional adversary as the German Army. Finally, Alan Allport's 2015 book on the British soldier in the Second World War, emphasises how

⁵¹ David Willams, *The Black Cats at War; The Story of the 56th (London) Division TA, 1939-1945*, (London: Imperial War Museum, Department of Printed Books, 1995).

⁵² David French, *Raising Churchill's Army*, (Oxford: Oxford University Press, 2000) and David French, 'Colonel Blimp and the British Army, British Divisional Commanders in the War Against Germany, 1939 to 1945', *The English Historical Review*, Vol.33, No. 4, (Nov.1996), 1182-1201 (p. 1182).

⁵³ Tim Harrison-Place, *Military Training in the British Army, 1939-1940*, (London: Routledge, 2016).

slow the Army was both to mechanise and to bring in other much-needed reforms in late 1940.⁵⁴ He also underlines that, despite conscription, the Army at the time often had to make do with the recruits that other services did not want and also that, largely because of boredom and a lack of clarity as what Britain's war aims were, desertion rates from the Home Forces in 1941 were the highest the British Army experienced during the entire Second World War. However, like French and Harrison-Place, Allport does not focus his analysis specifically upon the Army's actual 'Fighting Power' during the invasion emergency.

Turning again to the subject of Army morale, a key aspect of 'Fighting Power', this was not measured formally until 1942, even though civilian morale across the UK was evaluated continuously. Robert Mackay in his book on civilian morale, published in 2002, relates the work done by the Ministry of Information (via Mass-Observation) to track, amongst other things, how frightened people were about an invasion in the mid to late 1940 and beyond.⁵⁵ The true state of civilian morale near the south coast in particular and its likely impact on local Army units, who were often billeted in private homes, will be examined in Chapter One of this study.

A further category within the historiography concerns the studies that historians have made of British armoured forces and in particular, its tanks – clearly a vital component of the Army's 'Fighting Power' in 1940. David Fletcher in his 1989 book, *The Great Tank Scandal*, analyses why Britain trailed so far behind in tank design as the Second World War began.⁵⁶ David Smurthwaite, in his book on the British Army, *Against All Odds*, underlines both the mechanical unreliability of British tanks during the Battle of France and the relative lack of both speed and firepower of even the best British tank in late 1940 - the Mk.II (Matilda) infantry tank.⁵⁷ In addition, the studies by Brian Bond in 1980 and J.P. Harris in 1995 reveal how tortuous the development of a mobile combined arms doctrine was between the wars.⁵⁸ The degree to which such a doctrine was understood and embedded amongst the mobile armoured

⁵⁴ Alan Allport, *Browned Off and Bloody Minded: The British Soldier Goes to War 1939-1945*, (New Haven: Yale University Press, 2015).

⁵⁵ Mackay, *Civilian Morale*.

⁵⁶ David Fletcher, *The Great Tank Scandal. Part 1; British Armour in the Second World War*. (London: HMSO, 1989).

⁵⁷ David Smurthwaite, *Against All Odds: The British Army of 1939 to 1940*, (London: National Army Museum, 1990).

⁵⁸ Brian Bond, *British Military Policy Between the Two World Wars*, (Oxford: Clarendon Press, 1980) and J.P.Harris, *Men, ideas and tanks: British Military Thought and Armed Forces, 1903-1939*, (Manchester: Manchester University Press, 1995).

counter-attacking formations within the GHQ Reserve is something that will be examined in detail in Chapter Three.

Finally, turning to articles in journals there are a number that further call into question the Army's 'Fighting Power' in late 1940. For instance, Jeremy Crang examines army morale in an article he wrote in 1997 on morale in the Home Forces.⁵⁹ His conclusion is that army morale was an increasing issue in 1940 and then into 1941, despite the threat of invasion. This, he says, was because large numbers of conscripted soldiers found themselves in makeshift camps and were faced with poor food, little in the way of amenities, boredom and the knowledge that the German Army would prove a fearsome opponent should an invasion occur. However, these conclusions are rather 'broad brush' and once again, are not backed up by primary sources from within individual front-line units.

Two further articles are also worthy of note. The first, written in 2004 by Mark Connelly and Waller Miller, looks at the relatively high surrender rates within the British Expeditionary Force during the Battle of France and concludes that, although poor morale was one of the causes, another more potent one was the British Army's lack of a cohesive and fully understandable doctrine.⁶⁰ Also they concluded that innovative thinking amongst officers was generally low, not helped by the fact that many officers above the rank of Captain were veterans from the previous war. Given that this issue is likely to have persisted amongst the Home Forces a few months later, it clearly needs investigating here. The second article, by Geoffrey Field in 2011, examines the issue of 'class' within the British Army.⁶¹ He makes the point that, in 1939, only 5% of the officers trained at Sandhurst came from state Grammar schools (as opposed to private schools) and that when the Army did finally start to analyse morale in 1942, widespread class 'friction' was uncovered in the ranks – with some disaffected soldiers even writing to the Daily Mirror! Field also concludes that, after the campaigns in Norway and France, the British public began to lose confidence in the Army. Given that many units within XII Corps were billeted in civilian homes throughout Kent and Sussex as the invasion crisis grew, this conclusion also needs examining within this study.

⁵⁹ Jeremy Crang, 'The British Soldier on the Home Front: Army Morale Reports, 1940-45', in: *Time to Kill: the Soldier's Experience of War in the West, 1939-1945*, ed. by Angus Calder and Paul Addison, (London: Pimlico, 1997), pp. 60-74.

⁶⁰ M. Connelly and W. Miller, 'The BEF and the Issue of Surrender in the western Front in 1940', *War in History*, 11 (4) (2004), 424-441.

⁶¹ Geoffrey Field, 'Civilians in Uniform': Class and Politics in the British Armed Forces', *International Labour and Working Class History*, Vol.80, (2011), 121-147.

Turning to the capability of The Royal Air Force to provide tactical support to the Army in the event of both landings and the establishment of a significant inland bridgehead it is interesting that, although there are a very large number of books looking at The Battle of Britain from every conceivable angle, the Royal Air Force's potential provision of close air support to the Army in late 1940 has been relatively neglected by historians. This gap has been partly addressed by Greg Baughen's recent (and detailed) study of The Royal Air Force in 1940, which looks closely at the question of tactical support.⁶² His core conclusion is that, in September 1940, the Royal Air Force would have struggled to provide the kind of battlefield support that the Army had been asking for since 1938, and doing so more vociferously after its experience in France in May 1940. Baughen also concludes that a major part of the problem was the Air Force's focus upon strategic bombing and thus its reluctance to 'squander' aircraft in battlefield support – something it considered both unprofitable and dangerous. He also concludes that, in any event, Bomber Command lacked the right aircraft to provide proper tactical support readily and that its 'heavy' bombers (Wellington's, Hampden's and Whitley's) were increasingly seen as night bombers only.

Baughen's study builds upon the work of W.A. Jacobs, whose 1983 article on air support was published in *Military Affairs* and describes the growing dispute in the summer of 1940 between Brooke and the then Head of Bomber Command, Air Marshal Sir Charles Portal. This centred around whether the Army should have its own dedicated tactical support force under its command, or continue to rely upon the Air Force to deliver support when requested.⁶³ Although the War Office intervened to order the creation of Army Co-Operation Command in November 1940, Jacobs explains that the meagre Army Support Squadrons within it were still 'owned' by the Royal Air Force and thus the same, increasingly acrimonious, debate was still going on in late 1942 between Brooke (now Chief of the Imperial General Staff) and Portal (now Chief of the Air Staff). A further important part of the historiography is James Corum's study of the Luftwaffe's Army support doctrine, which was published in *The Journal of Military History* in 1993.⁶⁴ This concludes that the Luftwaffe's huge success in providing tactical battlefield support in France in May 1940 was down to little more than an ingrained acceptance that one of its primary objectives was to support the Army - something which had

⁶² Greg Baughen, *The RAF in The Battle of France and The Battle of Britain*, (London: Fonthill, 2016).

⁶³ W.H. Jacobs, 'Air Support for the British Army 1939-1945', *Military Affairs*, Vol. 46, No.4 (December 1982), pp. 174-182.

⁶⁴ James Corum, 'The Luftwaffe's Army Support Doctrine, 1918-1941', *The Journal of Military History*, Vol. 59, No. 1 (January 1995), pp. 53-76.

been reinforced by joint-training before the war. However, none of these various studies specifically examine the availability of tactical air support for the three Army Corps under investigation in September 1940.

In conclusion then, there is considerable consensus amongst historians, particularly in the more recent studies, that the fighting capability of the British Army left much to be desired in September 1940, despite three months of effort to improve it since Dunkirk. Based on the existing historiography it would have been a challenge for the Army to have repelled a significant German invasion force that landed successfully and advanced inland with armour. Crucially, it would be fair to say that the more recent the analysis the more pessimistic the conclusion, something perhaps due to modern historians being more willing to challenge some of the ‘sacred cows’ of Britain’s accepted ‘narrative’ of 1940, coupled with the fact that most of those who fought in France or who guarded the nation’s shores or who flew sorties in 1940, have now passed away. This trend towards a more realistic assessment of the Army’s capability to defend the nation has arguably accelerated since the millennium, perhaps catalyzed by David French’s seminal study of the Army in 2000 (referred to earlier). It appears to run in tandem with an increased tendency for historians to call into question the British Army’s performance throughout the entire Second World War not just the (clearly problematic) early years. Crucially though, the true capability of the actual forces that would have been tasked with repelling such an invasion of Kent and Sussex in September 1940, namely XII Corps and the GHQ Reserve, remains under-explored. Nor have historians previously looked at this question through the lens of the modern British Army’s model of Fighting Power. Without such an analysis it is difficult to assess what Britain’s true chances of survival might have been, in the face of a further round of the high-intensity warfare the Wehrmacht excelled at.

Methodology

While examining both the primary and the secondary research questions, this study has placed a strong focus upon the War Office and Air Ministry files available at The National Archives – particularly the war diaries of the various units in question. Although some of these war diaries, especially those of armoured formations, can only be described as ‘minimalist’ in their approach to recording daily activity, others often provide fulsome and detailed insights into the challenges faced by their commanding officers in the summer of 1940, not to mention the unit’s interface with the local civilian population. Given the obvious need to gain additional insights from those who fought or stood ready to fight in 1940, this study has also examined the papers

of some twenty-five Army officers thanks to the Imperial War Museum's document archive, along with around one hundred and fifty testimonies from its sound archive - from all ranks, across both the Army and the Royal Air Force. These have proved invaluable, especially in terms of the true limitations of some items of the Army's equipment and of the less successful aircraft types. The key repositories of the private papers of senior officers in 1940 have also been trawled, especially the Liddell Hart Centre for Military Archives, the Churchill College Archives and the National Army Museum.

Perhaps the greatest challenge of using The Fighting Power Model to address these research questions has been the danger of being drawn into several large subject areas, each of which could have warranted a doctoral-level study on its own. A good example of this might be 'Leadership', one of the key elements of the Moral Component of Fighting Power. Rather than become embroiled in an extensive exposition of leadership theory and modern military leadership models, this study has opted to highlight references to further such reading in footnotes. Thus, in the case of 'Leadership' the focus has been upon establishing the Army's approach to the subject in 1940 together with unearthing credible examples from primary sources as to the leadership capability of the very senior officers across the three Army corps under investigation in September 1940. Primary archival sources have also been trawled in an attempt to examine the truthfulness of allegations (not least in the Bartholomew Report) of a lack of 'offensive-mindedness' amongst some platoon and company commanders in France.⁶⁵ The same approach has been used when exploring other components of The Fighting Power Model (and particularly when debating the development of doctrine prior to 1940) in an attempt to avoid other such 'rabbit holes'. In summary then, the emphasis has been upon the defined research period in 1940 and thus wider questions (such as the general development of doctrine and changes to training prior to the war), have been analysed only if they have a direct link to the events in the research period.

One issue that this study has faced has been the fact that relatively few middle-ranking or senior officers in either the Army or in the Royal Air Force have left behind diaries or memoirs of their experiences in 1940. The tiny proportion of Army officers who did keep diaries (that are now accessible to the researcher) tend to focus upon their experiences with the British

⁶⁵ For a full list of the recommendations contained with the Bartholomew Committee's final report, please see TNA, CAB 106/220.

Expeditionary Force and thus come to an end after Dunkirk. Similarly, although there are numerous diaries and memoirs from Battle of Britain fighter pilots or from members of bomber crews detailing some aspect of their role in Bomber Command's operations over Germany as the war progressed, there relatively few from the crews of the light bomber force in the summer of 1940. Thus, the diaries that are available in archives represent a tiny fragment of what might have been available if men of all ranks had recorded more about either the Army's preparations to repel an invasion, or the Air Force's involvement with tactical ground support.

Another challenge has been the closure of almost all historical archives in the UK during the pandemic. This has been largely overcome by extending the research phase of this study, but it has nevertheless meant that not enough justice has been done to the primary sources that sit in numerous, often small, regimental museums and county records offices – most of which have remained closed to the public long after the larger archives have re-opened. The closure of regimental museums has been a particular loss to this study given that many relevant diaries doubtless exist there. That said, the richness of many of verbal testimonies from the Imperial War Museum's sound archive has gone a long way to compensating for this.

Another issue this study has had to address concerns the lack of access to (and probably existence of) both Army Personnel records and thus the equivalent of today's Officers Joint-Appraisal Reports for the years immediately prior to the Second World War. In theory these would have been a useful source of additional insights into the leadership capability and potential of individual officers within XII Corps and the GHQ Reserve in 1940. That said, there are practical constraints relating to gaining access to these records, where they still exist. The Army Personnel Centre – Historical Disclosures Section states in its briefing document that it will only supply copies of documents to the next of kin of deceased former soldiers and officers. Furthermore, it is not clear what typically exists within these files and the briefing document underlines that, 'There is not as much detail held on Army personal files as people think'.⁶⁶ Also, for completeness, it should be noted that none of the personnel records for officers in World War Two are stored within the National Archives, with the exception of what are described as 'personal files' relating to some seventy nine (mainly high-ranking officers), none of whom served in XII Corps or the GHQ Reserve in 1940.⁶⁷ In any event, even if a relatively full set of annual appraisal reports were available for individual officers across XII

⁶⁶ rapc-association.org.uk., p.1. [Accessed 20/1/22].

⁶⁷ These so-called 'personal files' are to be found in the series, TNA, WO 138.

Corps and the GHQ Reserve for 1940, analyzing all of them, or even merely examining a valid sample, would be an enormous exercise and one that would probably yield relatively little in terms of new and high-quality insights. This is because, as with any performance management system, the appraisals are likely to be most useful only for identifying the relatively small number of either ‘outstanding’ or ‘demonstrably poor’ leaders – some of which is (at least in the case of senior officers) already known via the historiography. Crucially, useful insights on the vast majority of officers classified as being the equivalent of ‘average’ or ‘good’ leaders are considered likely to be thin on the ground.

Furthermore, this study will not include a systematic analysis of the ‘Fighting Power’ of the Local Defence Volunteers (the Home Guard) in Kent and Sussex, given that this is agreed by historians to have been ‘low’ at the time, even though it grew substantially during 1941. For instance, David Yelton is clear that, although some 250,000 men had volunteered for the Local Defence Volunteers within a week of it being formed in May 1940, as the summer wore on ‘even military men were shocked at how ill-prepared the War Office was for equipping both the Army and the LDV’.⁶⁸ Also, as will be examined briefly in Chapter Three, the role of the Local Defence Volunteers in the summer of 1940 was the subject of some debate and at that stage in the war was mainly focused around manning static defences and helping round up parachutists. As S.P. MacKenzie puts it, ‘A more aggressive role was out of the question given the arms and training needs of the Army...’.⁶⁹ Also, as Malcom Smith concludes, in 1940 ‘many of the Home Guard would have had to fight the invaders with broomsticks’.⁷⁰

Nor will this study examine Britain’s beach and coastal defences in September 1940 as historians agree that, at the time, they were incomplete and would have only delayed, not prevented, an assault. Furthermore, this study will not examine the secret forces that were established in the summer of 1940 and which would have sought to operate behind enemy lines in the event of an invasion. This is simply because they were relatively small at the time, they would have operated independently of front-line Army units and because their overall

⁶⁸ David Yelton, ‘British Public Opinion, the Home Guard and the Defence of Great Britain’, *The Journal of Military History*, Vol. 58, No. 3, (July 1994), pp. 146-480 (pp. 465-466). Also, for a full description of the Local Defence Volunteers in 1940, see; Norman Longmate, *The Real Dad’s Army*, (London: Hutchinson, 1974).

⁶⁹ Mackenzie, S., P., ‘The Real Dad’s Army: The British Home Guard, 1940-44’, in *Time to Kill: the Soldier’s Experience of War in the West, 1939-1945*, ed. by Paul Addison and Angus Calder, (London: Random House, 1997, pp. 50-59, (p.53.).

⁷⁰ Malcolm Smith, *Britain and 1940: History and Popular Myth*, (London: Routledge, 2000), p. 56.

contribution to the fighting capability of the formations under investigation in this study would (most likely) have been small.⁷¹

In addition, this study will pre-dominantly focus only upon XII Corps and the GHQ Reserve as they would have been in the vanguard of any effort to repel an actual invasion that would (according to German plans captured at the end of the war) have focused solely upon four stretches of beaches along the Kent and Sussex shore.⁷² In the event of German forces achieving extensive incursions inland, it is not unlikely that additional forces beyond the GHQ Reserve would have been ordered into Kent and Sussex in a desperate attempt to stem the advance towards London. Such formations might, for instance, have come from V Corps within Southern Command in Hampshire, or from Essex where the well-equipped 52 (Lowland) Division guarded part of the coastline. However, this study has uncovered no written plans for this and so such forces have not been examined as part of this analysis – not least because the logistical challenges of moving formations of this scale at pace into the south-east of England would have been challenging, as Chapter Three will explore. Nor will this study examine the capability of the formations manning London's inner and outer so-called 'anti-tank rings', designed to provide a 'last ditch' defence of the capital – other than to note that many of these were high-calibre regular forces. Thus, for example 24 Guards Brigade, headquartered in Barnes, guarded the southwest approach to London with the 1st Battalion, The Irish Guards, dug in on Wimbledon Common.⁷³ Also, no investigation will be made of the German plans for Operation Sea Lion which have already been thoroughly scrutinised in numerous publications since the Second World War and nor will this study speculate in any detail upon its chances of success had it been executed. Finally, the capability of the Royal Navy's Home Fleet in September 1940, either to prevent landings in the south-east or to inhibit the re-supply of German forces, also lies outside the scope of this analysis.⁷⁴ Suffice it to say here that historians disagree on how effective the Home Fleet would have proved if faced with such a challenge.

⁷¹ For more information on these irregular forces please see; David Lampe, *The Last Ditch: Britain's Secret Resistance and the Nazi Invasion Plan*, (London: Greenhill, 2007, c1968).

⁷² Forczyk, *Operation Sea Lion*, p. 225

⁷³ TNA, WO 166/927, war diary of 24 Guards Brigade, July 1940-June 1941.

⁷⁴ For insight into one aspect of this question, whether Britain was saved from invasion primarily by The Royal Navy or The Royal Air Force, see; Anthony Cumming, 'The Navy as the Ultimate Guarantor of Freedom in 1940?', (unpublished doctoral thesis, University of Plymouth, 2006).

Finally, throughout this study and especially in Chapter Three on the Conceptual Component of Fighting Power, aspects of the British Army's 'fighting doctrine' in 1940 will be examined. One important component of this doctrine, which had first emerged in 1918, involved different elements of the Army fighting and manoeuvring together in a highly-coordinated manner, to a greater extent than had occurred hitherto. By 1940, with the development of modern armoured formations, mobile 'combined arms' warfare was becoming something of a 'holy grail' for the British Army even though, as this study will explore, the practical realities of executing such warfare on a large scale were not yet within its grasp. The key point here is that within the historiography there are different terms to describe such a way of fighting, but this study will use the term 'combined arms' – on the basis that more than one branch of the Army was involved. The phrase 'all arms', that is referred to by some historians, will therefore not be used. Furthermore, the phrase 'joint arms', which refers to the involvement of more than one service will also not make an appearance in this study, partly for the sake of simplicity but also because the role of the Royal Navy has not been examined and because the ability of the Royal Air Force to provide the Army with tactical ground support at the time was, as will be shown, very limited.

Overview of the three Army corps under investigation

Given that the focus of this study is upon just XII and the General Headquarters (GHQ) Reserve in September 1940, it is worthwhile giving a short description of these forces, as they will be referred to continuously. This is also summarised in Appendix 1.⁷⁵ Led by Major-General Sir Andrew Thorne, XII Corps covered Kent and Sussex, and was, by September 1940, composed of many different formations, including its own so-called 'reserve', together with the garrisons defending key ports such as Dover. Its two core infantry divisions, according to Daniel Todman, typified the less-equipped, territorial, 'County' divisions, that were being used at the time to form the 'outer crust' of the defenses along Britain's most vulnerable coastline.⁷⁶ But, in the eyes of General Sir Alan Brooke, they had a vital role to play in holding up a German advance until forces of the GHQ Reserve could arrive and counter-attack.⁷⁷ As noted earlier, 1 (London) Division was a territorial formation tasked with covering the extensive Kent coastline – with the emphasis upon the northern Kent beaches near to London (e.g., Margate)

⁷⁵ Appendix I: The Order of Battle of XII Corps and the GHQ Reserve in September 1940

⁷⁶ Daniel Todman, *Britain's War; Into Battle 1937-1941*, (London: Penguin, 2016), p. 405.

⁷⁷ TNA, WO 199/569, Military Defence of the UK, November 1940, Report entitled, *Military Defence of the UK*, by General Sir Alan Brooke, 27 November 1940.

where the risk of invasion was thought to be particularly high. Its two core infantry brigades (the 1st and 2nd London Infantry Brigades) had largely been raised in the City of London. In addition to three thousand Royal Marines across the Deal and Dover Garrisons, the division had been given two further brigades of ‘second-tier territorial troops - 198 Brigade (defending the Isle of Thanet) and 35 Brigade, which focused upon the Isle of Sheppey and which contained battalions of The Queen’s Royal Regiment – formations that had been badly mauled in France.

45 (West Country) Division, responsible for the coastline of Sussex from Dungeness round to Newhaven, was another territorial formation. Containing numerous battalions from The Devonshire Regiment, the Somerset Light Infantry and the Duke of Cornwall’s Light Infantry, it had been a training division before 1940. As the invasion crisis peaked, XII Corps was allocated formations (from the GHQ Reserve) by General Sir Alan Brooke, to act as its own counter-attacking reserve. Thus the 2nd New Zealand Division, comprising a mere two brigades of recently arrived troops, was moved down into the Ashford area. It was augmented with an armoured unit, the 8th Royal Tank Regiment, with some twenty-three of the Army’s limited number of modern MK II (Matilda) infantry tanks. XII Corps was also allocated 29 Independent Infantry Brigade and 31 Independent Infantry Brigade as an additional reserve as the crisis peaked. Crucially though, the vast majority of XII Corps’ frontline and reserve formations in September 1940 were untried in battle.

Conceived as a mobile counter-attacking force, the GHQ Reserve involved two further Corps plus some ‘deeper’ reserves. Crucially, almost all the nation’s armoured formations sat within its auspices. Based around the ‘Dorking gap’ in the Surrey Hills, and thus protecting the southern approach to London, VII Corps was in many respects the principal component of the GHQ Reserve. It contained 1 Armoured Division with some one hundred cruiser tanks, along with 1 Army Tank Brigade which had fought in the short-lived but effective counter-attack at Arras on 20 May 1940 and which by September contained around eighty modern infantry tanks.⁷⁸ 1 Army Tank Brigade trained extensively with 1 Canadian Infantry Division in the summer of 1940 and together these units would have been the country’s primary mobile counter-attacking reserve.

⁷⁸ Appendix III: Number of ‘Modern’ Tanks by mid-September 1940 and Appendix IV: Location of ‘Modern’ Tanks by mid-September 1940.

The other corps within the GHQ Reserve, IV Corps, included the depleted 2 Armoured Division which could only muster light tanks and some fifty-odd cruiser tanks in September 1940. In addition, it contained two territorial infantry divisions. 42 (East Lancashire) Division had endured significant losses during the campaign in France when it had defended part of the Dunkirk perimeter. It had been recently moved by Brooke from North Yorkshire into the Thames Valley as the threat of invasion mounted and is described by Robert Forczyk as ‘a poorly-equipped territorial division, with limited mobility’.⁷⁹ 43 (Wessex) Division, based in Hertfordshire in September 1940, was considered well-equipped (according to Newbold) but had no previous combat experience.⁸⁰ The GHQ Reserve also contained what might be termed a ‘deeper reserve’. Around Salisbury Plain, there were based two brigades of the Australian Expeditionary Force comprising some 7,000 men but, like the New Zealanders, they lacked heavy equipment. Furthermore, the 21st Army Tank Brigade, also based around Salisbury Plain, had around eighty modern infantry tanks by September 1940.⁸¹ Throughout the summer of 1940, it trained hard with 3 Infantry Division, a regular formation now re-equipped after its campaign in France and based in Somerset. In the event of an invasion, these two formations would have formed another key counter-attacking force. In summary then, the GHQ Reserve was not particularly large even though some of its units were well-equipped in relation to the rest of the Home Forces. It contained around three hundred and sixty modern cruiser and infantry tanks. How effective these formations were at executing a combined arms doctrine will be examined as part of this study, along with the technical capability of their tanks and challenges of getting GHQ Reserve formations ‘into theatre’ at pace. These, then, were the forces that would have been at the forefront of repelling an invasion of Kent and Sussex in the summer of 1940. Their fighting capability now needs to be assessed.

⁷⁹ Forczyk, *Operation Sea Lion*, p. 230.

⁸⁰ Newbold, ‘British Planning and Preparations to Resist Invasion’, p. 315.

⁸¹ Appendix III: Number of ‘Modern’ Tanks by mid-September 1940.

Chapter One

The Moral Component of 'Fighting Power'

Chapter One addresses the first of the secondary research questions, i.e., in terms of the Moral Component, what was the 'Fighting Power' of XII Corps and the GHQ Reserve to repel a German invasion of Kent and Sussex in September 1940? It will do this firstly by going beyond the historiography to explore what historians have concluded specifically about the Moral Component of 'Fighting Power', (i.e., morale and leadership) as it relates to the British Army in the UK the second half of 1940. This will be followed by an outline of what primary research sources have revealed about both morale and leadership within XII Corps and the GHQ Reserve as the invasion crisis reached its peak.

Morale

In the view of Field Marshal Montgomery, morale, 'Is probably the single most important factor in war.'⁸² That said, it is elusive to define and even more so to measure. As Jonathan Fennell puts it, 'morale is fragile, fluid and needs to be nurtured.'⁸³ The definition of morale within the Model of Fighting Power has many components including courage, resilience, discipline, comradeship, a pride in one's unit, confidence in equipment (and in the provision of food, decent quarters, and medical facilities etc) and finally, a shared belief that a cause is worth fighting for.⁸⁴ Most are, by their nature, nebulous and thus hard to assess robustly particularly in battle. Also, the elements of morale within the Model of Fighting Power are unweighted in terms of their relative importance to the morale of a formation of soldiers. For instance, how important within the Model is the concept of 'shared belief', verses soldiers having confidence in their equipment? Testimonies from men who served with the British Expeditionary Force in France in 1940 and that have been examined by this study, say little about a shared belief in a 'cause' (other than getting home), whereas many of them speak with conviction about the huge impact of the new Bren gun. For example, Humphrey Bredin, a

⁸² Lieutenant-Colonel J. H. A. Sparrow, *Morale*, (London: The War Office, 1950), p. 51.

⁸³ Jonathan Fennell, *Combat Morale in the North African Campaign; The Eighth Army and the Path to El Alamein*, (Cambridge: Cambridge University Press, 2011), p.281.

⁸⁴ The Model of Fighting Power is laid out in; *Land Operations*, Land Warfare Development Centre, British Army Doctrine Publication, AC 71940.

second lieutenant with the (regular) Royal Ulster Rifles, describes in his testimony his formation's ill-fated mission, 'to hold Louvain'.⁸⁵ He then emphasises the thirty-mile march back to Brussels that they had to undertake when told to withdraw and the 'confused' looks given to them by Belgian civilians; but at no point does his testimony of his formation's exploits in France mention a wider sense of any shared belief in something worth fighting for. He does, though, specifically mention that their new Bren guns, 'proved very accurate'. By contrast, Douglas Rosewarn, an NCO with the Somerset Light Infantry who patrolled the Dungeness coast at night for some nine months, also mentions the Bren gun, but he puts greater emphasis on the common belief he and his colleagues had that the Germans would invade. As he put it, we knew that 'we were fighting to keep our parents and our families [safe]' and that, 'we didn't want to get invaded.... we had to stop it if we could'.⁸⁶ Thus in his case, the sense of a 'common purpose' appears to have been a more crucial factor in the maintenance of morale within his unit than the arrival of the new Bren gun. Thus, different elements of morale are important to different people at different times which makes morale even harder to measure, even if the 'weighting' of the elements of morale within the Model were agreed. Furthermore, some question whether individual testimonies have much of a role to play at all when trying to assess morale. Tom Harrison, for instance, the co-founder of 'Mass Observation' (used by the Ministry of Information to assess the country's morale as the crisis deepened), argued that while morale remains hard to define, it is best measured by looking at what people do, rather than by what they say.⁸⁷ For him, actual morale is primarily about actions. Thus, as has been proved in war countless times, soldiers can be downhearted, surrounded, hungry and short of equipment, but it does not mean they will not fight ferociously, even to the last man, when ordered to do so, especially in defence of their homes and families.

Whatever the challenges of measuring morale, there is evidence in the historiography that the British Army had something of a 'morale issue' throughout World War II – and especially in its early years. Alan Allport, for example, is clear that Army morale was badly damaged by the defeat in France and describes the Army that escaped at Dunkirk as more of 'an exhausted, disarmed mob'.⁸⁸ Although the Army did not start formally measuring morale until 1942, it

⁸⁵ London, Imperial War Museum (IWM), Sound Archive, No.12139/1, Humphrey Bredin, Second-Lieutenant, 2nd Battalion, Royal Ulster Rifles, 9 Brigade, 3 Division.

⁸⁶ IWM, Sound Archive, No. 17500/1, Douglas Rosewarn, NCO, 5th Battalion, Somerset Light Infantry, 135 Brigade, 45 (West Country) Division.

⁸⁷ Ian McLaine, *Ministry of Morale: Home Front Morale and the Ministry of Information in WWII*, (London, Allen & Unwin, 1979), p. 8.

⁸⁸ Allport, *Browned Off and Bloody Minded*, pp. 55-56.

was sufficiently worried about it in late 1940 to task Brigadier Kenyon from the Directorate of Military Intelligence with producing a report on the subject. Having consulted widely he concluded that, amongst other things, boredom was a key factor in low morale, especially amongst the thousands of new conscripts that now populated the Home Forces.⁸⁹ This conclusion appears to be supported by a history of 1 (London) Division in Kent that states that, by September 1940, the effect of continually ‘standing-to’ along the Kent coast was ‘taking its toll on the Division’.⁹⁰ But is the notion of boredom reducing morale and thus leading to a lack of discipline particularly amongst the formations of XII Corps and the GHQ Reserve in the summer of 1940, borne out by evidence gathered from primary sources?

Boredom and ill-discipline

What ‘standing-to’ really meant is demonstrated by the war diary of the 1 London Brigade, who were defending Herne Bay and the surrounding north Kent coast that summer. On 8 September, just after the ‘Cromwell alert’ had been sent, instructions were issued stating that, ‘Posts are now to be manned at 100% scale between evening stand-to and morning stand-down.’⁹¹ Furthermore the brigade’s three component battalions, (the 8th Battalion and the 9th Battalion, Royal Fusiliers, and 1st London Irish Rifles), were each placed at 10 minutes notice to move. Furthermore, all leave was cancelled, all training postponed and a compulsory rest of three hours during the day was mandated – during which the men had to sleep fully-clothed.⁹² The fatigue this routine must have generated is re-affirmed by a Second-Lieutenant Strickland from the same battalion who, as early as 7 July (as part of B Company tasked with guarding a local aerodrome in north Kent), confided to his diary ‘We are all tired and bored.’⁹³ Meanwhile, down on the exposed Dungeness coast, Eric Hutchins, a Signaller with the 8th Royal Fusiliers, commenting on the daily routine back then, states that, ‘Everyone was bored out of their mind.’ He also underlines how tiring it all was, given the long summer days and the short nights and how demoralised he and his colleagues all were after the fall of France.⁹⁴ This boredom is also validated by the account of R. Holbrow, who as a young conscript found himself guarding the beaches around Hythe in July 1940. According to his diary;

⁸⁹ IMW, Document Archive, No. 3868, Box 84/8/3, Brigadier Kenyon, report entitled; *Army Morale*, by, dated 29 September 1940.

⁹⁰ Williams, *The Black Cats at War*, p. 13.

⁹¹ TNA, WO 166/1040, war diary of 1 London Brigade, August-December 1940, Home Office Defence Instructions (No.70), dated 8 September 1940.

⁹² *Ibid.*

⁹³ IWM, Document Archive, No.16323, diary of Captain J.R. Strick, entry for July 7 1940.

⁹⁴ IWM, Sound Archive, No.14880/1, Eric Hutchins, Signaler, 8th Royal Fusiliers, 1 London Brigade, 1 (London) Division.

If we were on night duty (lasting eight hours) then we stood-to for four hours after which half of us went for a snack and a cup of cocoa, before then standing-to for a further three hours to cover the dawn period when an attack from the sea was most likely. It was all very boring and all we could do was sit in our trenches and yarn to each other, while a couple of our number stood at the trench parapet and scanned the sea through binoculars. It could get very cold at night and of course no fires could be lit to warm us up. The hours of waiting for 'stand down' to arrive passed very slowly and as no lights were permitted, it was not even possible to read or play a game of cards.⁹⁵

A similar sense of 'ennui' is evident amongst a formation of 45 (West Country) Division, a few miles to the south, in Sussex. Here, for instance, the 6th Battalion, Somerset Light Infantry (135 Brigade), recorded on 8 August 1940 that the men were having to operate a 100% 'stand-to' from 0330 till 0520, with 100% manning of all posts from 2100hrs and sleeping in such positions. On 26 September, the battalion's war diary reported that the men were still sleeping at their posts during the night and 'standing-to' from 0400 hours to 0615 hours.⁹⁶ This routine continued for some well into October. Furthermore, around Newhaven the Duke of Cornwall's Light Infantry found themselves still being called upon to 'stand-to' each night from 10 October, following a Luftwaffe attack on the port. Also, as the result of a raid on Eastbourne the following day, the whole of 45 (West Country) Division was ordered to revert to a 60% manning of its beach defences and a 60% 'stand-to' each morning.⁹⁷ The issue of the 'boredom' that resulted from this daily routine was of concern to Lieutenant Colonel John Carew-Pole, the officer commanding the 5th Duke of Cornwall's Light Infantry covering Newhaven. According to his testimony, he tried to change the tempo somewhat by telling his officers, 'The men must not be left idle during stand-to, gazing into space. The time must be used for musketry instruction and quickening exercises by question and answer.'⁹⁸ How effective this proved, their war diary does not say.

⁹⁵ IWM, Document Archive, No. 15631, Diary of (then Private) Lieutenant R. Holbrow, Gloucester Regiment, entry for July 1940.

⁹⁶ TNA, WO166/4567, war diary of 6th Battalion, the Somerset Light Infantry, 135 Brigade, 45 (West Country) Division, June to December 1940, entry for 25 September.

⁹⁷ TNA, WO 166/992, war diary of 136 Brigade, Headquarters, 45 (West Country) Division, entries for 10 October and 11 October 1940.

⁹⁸ TNA, WO 166/4216, war diary of 5th Duke of Cornwall's Light Infantry, September 1940.

In summary, there is little doubt that many of the men guarding the south-east coastline at the peak of the invasion crisis were clearly ‘bored’, thanks to prolonged periods of ‘standing-to’ in the face of nothing much happening. But, as noted earlier, it would be wrong to conclude that such boredom would have automatically reduced their ability or willingness to fight. A worthwhile example of troops being effective in combat despite enduring prolonged boredom can be found amongst the German troops guarding Dieppe two years later. According to Patrick Bishop’s recent study, some 1,500 men (from the 571st Regiment of 320 Division) were guarding the port in August 1942.⁹⁹ Boredom was a very considerable issue, according to a Hauptmann Joachim, who wrote in his diary that ‘We had a problem with the men guarding the coast... Nothing happened, but the waves coming and going, coming and going.’¹⁰⁰ And this was despite (according to Bishop), the numerous bars and cafes in Dieppe that stayed open until midnight for off-duty German troops, a nightly film at the cinema in the Grande Rue, good food, frequent leave to Paris and Rouen, and even a brothel for German troops in the nearby village of Puys – amenities that none of the troops in XII Corps would have dreamed of back in the summer of 1940. But the key point is that, however ‘bored’ they might have been, the German forces along the Dieppe coast fought with great tenacity as soon as allied landing craft appeared offshore.

Thus, the tangible impact of continually ‘standing-to’ within XII Corps in the summer of 1940 was probably less about the resultant ‘boredom’, than the fact that it greatly reduced the time that could be devoted to the vital task of training, something these forces badly needed (as will be explored in Chapter Two). Thus for instance, Geoffrey Bird, an officer cadet guarding Folkestone harbour in the summer of 1940, is clear in his memoir that the constant ‘standing-to’ meant that they did not spend ‘enough time doing map-reading’.¹⁰¹ And along the coast at Dymchurch, even throughout the winter of 1940, a 60% ‘stand-to’ at dawn was normal practice for the 5th Battalion, Queen’s Own Royal West Kent Regiment which, according to one of its officers G. Dyas, ‘lasted until they could see out to sea clearly for 300 yards’ and inevitably meant that ‘there were no schemes.’¹⁰² In contrast, the training routine of the formations within the GHQ Reserve continued unabated throughout August and September 1940, with the result

⁹⁹ Patrick Bishop, *Operation Jubilee, Dieppe, 1942: The Folly and the Sacrifice*, (London: Viking, 2021), p. 96.

¹⁰⁰ Ibid.

¹⁰¹ IWM, Document Archive, No. 27241, memoir of Major Geoffrey Bird, 4th Battalion, Hampshire Regiment, entitled; *An Unintentional Soldier*, p. 5.

¹⁰² IWM, Document Archive, No. 22279, memoir of Major G. Dyas, 5th Battalion, Queen’s Own Royal West Kent Regiment, Chapter V, p. 57.

that this study has discovered scant evidence that those forces were suffering from anything like the same high degree of boredom because of inactivity.

According to a study undertaken by the War Office in 1950 that looked back at the Second World War, good discipline was ‘a primary and indispensable factor’ to British success during the conflict.¹⁰³ That said, subsequent historians, in particular David French, have shown that incidents of ill-discipline were an enduring problem for the Army – an issue that (according to him) first raised its head in France in 1940. Proof of the on-going nature of this issue is that, later in the war, the problem was sufficiently widespread that some senior British Army commanders even campaigned for the re-introduction of the death penalty as a deterrent.¹⁰⁴ Given the link between ill-discipline and diminished morale, this issue thus needs exploring in relation to the Army in the UK during the summer of 1940. The War Office’s study of discipline in 1950 reveals that the various offences categorised under ‘ill-discipline’, ‘desertion’ and ‘absence without leave’, accounted for over a quarter of punishments in the Army in the UK in 1939-1940 and almost half of them in 1940-1941.¹⁰⁵ Also, according to the study, there were some 1,149 courts-martial convictions for ‘absence without leave’ in 1939-1940, a figure that had risen to 12,074 by 1940-1941.¹⁰⁶ Such an increase must have been in some way related to low morale.

Looking at ‘discipline’ across XII Corps and the GHQ Reserve in the summer of 1940 is not easy, given that most unit war diaries reveal little about the disciplining of individual soldiers. Interestingly, Smalley’s study of discipline within the British Expeditionary Force in France concludes that it is hard to obtain a true picture, because a conscious decision was made by the Army to under-record ill-discipline, ‘in order to protect the reputation of individuals, units and the Army as a whole’.¹⁰⁷ This tendency appears therefore to have continued once the Army was back in the UK given that few unit war diaries make any mention of the issue. That

¹⁰³ TNA, WO 277/7 – *The Official History of Discipline 1939–1945*, WO, 1950, Chapter IV, p. 21.

¹⁰⁴ David French, (October 1998), ‘Discipline and the Death Penalty in the British Army in the War against Germany during the Second World War’, *Journal of Contemporary History*, Vol. 33, No. 4, 531-545, (pp. 538-40).

¹⁰⁵ For a definition of the difference between desertion and absence without leave (the former implying the intention not to return) see; Christine Bielecki, ‘British Infantry Morale During the Italian Campaign, 1934-1945’, (unpublished doctoral thesis, University College London, 2006) Chapter IV, Deserters and Absentees, p. 174.

¹⁰⁶ TNA, WO 277/7 – *The Official History of Discipline 1939–1945*, WO, 1950, Part IV – Absence and Desertion. P. 48., and Appendix 1b – Summary of Court-Martial Convictions (Other Ranks) UK.

¹⁰⁷ Smalley, *The British Expeditionary Force*, p. 8.

said, where war diaries in the summer of 1940 do include copies of ‘Daily Orders Part II’, listing individual disciplinary offences (mainly drunkenness, insubordination, disobeying orders, falling asleep on guard duty, theft and being absent without leave), they make interesting reading. In particular, ‘Part II Orders’ relating to some of the battalions within 1 (London) Division in Kent, reveal a picture of what appears to be a persistent level of ill-discipline, especially relating to un-authorised absence and theft. Notwithstanding the temptation of say slipping off to see a girlfriend, such absences are surprising given that the units concerned would have been in the vanguard of repelling an invasion, the likelihood of which was perceived to be very high when the offences were committed. It is also interesting that ‘Part II Orders’ have only been included in a very small proportion of these battalion’s war diaries, despite them being a standard Army document.

An interesting case in point can be found within 2 London Brigade, the 1st Battalion, London Rifles, which was stationed around Lyminge between June and October 1940. As is now known, had the German invasion plan been executed as planned in September 1940, 2 London Brigade would have borne the brunt of an airborne assault by German paratroopers aimed at capturing the high ground behind Folkestone followed by the port itself.¹⁰⁸ It is thus noteworthy that, on 26 August, the war diary of the 1st Battalion, London Rifles, includes a Battalion Order from its Commanding Officer, Lieutenant-Colonel Fairfax-Ross, reminding troops that all private houses are out of bounds. This is followed by a second Battalion Order (and presumably following further instances of theft), stating that, ‘Any form of pilfering of civilian property is a despicable act and will be severely punished.’¹⁰⁹ That these troops had either the time or the inclination to contemplate stealing from the houses of local people during such a crisis is thought provoking.

Turning to listings of individual offences, the same war diary contains copies of some Daily Orders (Part II). These reveal for instance that, on 30 September, two men were reported as being absent without leave, two others (from B Company) were listed as being under ‘close arrest’ and a further eight men had now been given a variety of punishments for being absent on a previous occasion – including, Rifleman W. Erwood, from the Battalion’s Headquarters

¹⁰⁸ Forczyk, *Operation Sea Lion*, British Dispositions in Kent and Sussex, 25 September 1940, p. 255.

¹⁰⁹ TNA, WO 166/4514, war diary, 1st Battalion, London Rifles, 2 London Brigade, 1 (London) Division, Battalion Order, 26 August 1940.

company, who was charged with being absent for five days.¹¹⁰ In another set of Daily Orders (Part II), for 8 October, four riflemen were listed as having been officially declared deserters. In addition, one sergeant and six riflemen had been caught being absent without leave, including Rifleman J. McKnight from the Headquarters Company who had broken out of camp at Lyminge on 25 September and then been absent for three days. Furthermore, Rifleman Yetton from C Company had been absent without leave for three days from 5 October, for which he received five days of detention. The key point here is that Daily Orders (Part II) are only included in this war diary for a handful of the days throughout August, September, and October 1940. This is a shame, given that specific reference is made in the war diary to Daily Orders (Part II) that were published on 28 September and on 5 October, but which are not present. But, if the assumption is made that the Daily Orders (Part II) that are available are representative of the Daily Orders (Part II) that are missing, it does appear that discipline in this battalion in September 1940 left something to be desired – just when it might have been required to repel the Wehrmacht. Whether the rates of desertions and (particularly) absence without leave that September were higher in the 1st Battalion, London Rifles, than in other second-line territorial formations guarding other parts of the British coastline is hard to prove. But it remains interesting that there could be any desertion or absence without leave within the front-line forces upon which the nation was relying in the face of a perceived threat which was, by 7 September, categorised as ‘imminent’.¹¹¹

The only other battalions within the 1 (London) Division where this study has come across Daily Orders (Part II) in their war diaries, are the 2/6th and 2/7th Battalions of the Queen’s Royal Regiment of West Surrey. Both were part of 35 Brigade and based around the north Kent coast as the invasion crisis peaked. Prior to this both had been ‘third-line’ territorial ‘digging battalions’ in France, constructing fortifications and anti-tank defences, before being overrun in the Somme valley by panzer formations heading to the coast. It is therefore perhaps reasonable to assume that, particularly as they had only recently been re-formed as infantry battalions back in England, their discipline in the summer of 1940 might have fallen below that of other units within 1 (London) Division. But even allowing for this, their ill-discipline is marked. The war diary of the 2/6th Queen’s Royal Regiment, based on the Isle of Sheppey

¹¹⁰ TNA, WO 166/4514, war diary, 1st Battalion, London Rifles, 2 London Brigade, 1 (London) Division, Daily Order Part II (Other Ranks) No.143, dated 30 September 1940.

¹¹¹ TNA, CAB 80/18/1, War Cabinet: Chiefs of Staff Committee, Memoranda Nos. 701–750, C.O.S (40) 721, Report by the Joint Intelligence Sub-Committee, *Possible German Action Against the United Kingdom*, 7 September 1940.

(viewed as an obvious target for invading forces), reveals a note dated 11 July from its Commanding Officer, Lieutenant-Colonel Bolton, underlining that ‘Discipline shows a marked deterioration.’¹¹² It is rare for war diaries in the summer of 1940 to contain notes as candid as this about the failings of a formation. But a month later, the same war diary reveals that there had been a problem with some of the troops behaving disrespectfully towards nurses based at the nearby Minster hospital in Thanet. The fact that this issue warranted specific mention in the battalion’s daily orders for 10 August, stating that ‘action will be taken against men shouting or calling names to nurses’, indicates that it was probably not an isolated incident, that most likely there had been a complaint and also perhaps that previous warnings from junior officers may have gone unheeded.¹¹³

Either way, even allowing for ‘soldiers being soldiers’ it points to a higher degree of ill-discipline than one might have expected given the vital anti-invasion role those troops were playing at the time. The perception of ill-discipline is reinforced by an examination of the Daily Orders (Part II) within the battalion’s war diary. Although, there are (unaccountably) no Part II orders on file through the months of August and September 1940, those dated 3 October reveal, amongst other things, that a Private Jones had been given 28 days detention in Aldershot for being absent for nineteen days. The Part II orders for the next day reveal that a Private Wills was given seven days ‘field punishment’ for being absent without leave. Furthermore, those for 8 October list six men who had received summary punishments, including a Sergeant Fowler, who had been severely reprimanded by Lieutenant-Colonel Bolton himself after failing to parade his platoon for duties at ‘stand to’. Discipline was mentioned again in Bolton’s Special Instructions No.15 that same month, when it was considered necessary to reiterate to all ranks that, ‘Orders must be obeyed immediately and without hesitation.’ Finally, in the Part II orders for 12 October, another seven men are listed as having received summary punishments, including a Private Hider, who had absented himself without leave for five hours from a guard mounting parade.¹¹⁴

Furthermore, within the 2/7th Battalion based nearby a similar picture emerges. In their Battalion Orders for 14 September, for instance, five men are listed as having received

¹¹² TNA, WO166/4499, war diary of 2/6th Battalion, Queen’s Royal Regiment, 35 Brigade, 1 (London) Division, 1939 – 1940, *Note from Lieutenant-Colonel Bolton*, dated 11 July 1940.

¹¹³ *Ibid*, *Battalion Orders (No.48)*, dated 10 August 1940.

¹¹⁴ *Ibid*, *Part II Orders, No.93* (dated 3 October), *No.94*, (dated 4 October), *No.95*, (dated 8 October), *No.96*, (dated 12 October) and *Special Instructions No.15*, (dated October), 1940.

punishments and a further five are similarly highlighted on 18 September. Furthermore, on 25 September, the Daily Orders (Part II), No.86, list seven men who had received a summary punishment, one of whom had been absent for 15 days.¹¹⁵ In fairness, these troops had by now been at intermittently high levels of readiness for at least three months with little in the way of leave etc but nevertheless these instances of absence and insubordination seem higher than one might expect. It may be that the true reason behind some of the ill-discipline within 35 Brigade was caused in part by their experiences in France. The War Office publication on discipline referred to earlier, concludes that one of the significant reasons for soldiers absenting themselves was so-called 'self-anxiety', whereby men felt 'unequal to battlefield conditions'.¹¹⁶ The impact of 'self-anxiety' upon morale amongst forces returning from Dunkirk will be considered later in this chapter, but the key point here is that the absence of copies of the Daily Orders (Part II), in most war diaries within 1 (London) Division in the summer of 1940, makes it hard to draw robust conclusions about the extent of the problem of ill-discipline and thus morale within the formations guarding the Kent coast. However, based upon this sample it appears that ill-discipline may have been considerably greater than has been previously thought.

Turning to 45 (West Country) Division, guarding the Sussex coast, a similar absence of Daily Orders (Part II) makes it impossible to examine the extent of the division's issue with ill-discipline. However, there is no reason why these forces would not have had the same issues with discipline that were apparent over the border in Kent. Some proof of this is to be found in an exchange between Lieutenant-General Sir Andrew Thorne, the General Officer Commanding XII Corps, and Major-General Schreiber commanding 45 (West Country) Division. This concerns whether men of the 4th Battalion, Duke of Cornwall's Light Infantry had, or had not, looted from some forty unoccupied bungalows on the Pevensey Bay sea-front near to where they were based, following detailed accusations from the President of the Pevensey Bay Ratepayers Association.¹¹⁷ It is revealing that, in the correspondence, Major-General Schreiber had the view that the matter should be dealt with purely within the battalion. It is also telling that no mention of this incident can be found in the battalion's war diary. This

¹¹⁵ TNA, WO166/402, war diary of 2/7th Battalion, Queen's Royal Regiment, 35 Brigade, 1 (London) Division, *Battalion Orders* dated 14 September and 18 September and *Daily Orders (Part II) No.86* dated 25 September.

¹¹⁶ TNA, WO 277/7, War Office publication entitled; *The Second World War, 1939–1945, Discipline*, 1950, Chapter XIII, Main causes leading to absence or desertion, p. 52.

¹¹⁷ London, National Army Museum, (NAM) Private Papers of General Sir Andrew Thorne 3367-3494, Letter from General Schreiber, 18 November 1940.

is further evidence to support the notion that disciplinary matters that might have affected the reputation of a regiment tended to be kept ‘within the family’ and thus why written accounts of incidents of ill-discipline are thin on the ground within battalion war diaries generally in the summer of 1940.

The war diaries of formations within the GHQ Reserve are similarly unforthcoming about ill-discipline within the ranks that summer. One reason for this might be because these formations were training so hard with armoured forces in ‘mobile counter-attacking’ – (as will be explored in the section on Training within Chapter Two). Despite this however, ill-discipline was clearly still something of an issue in 1 Canadian Division, if the Hastings and Prince Edward Regiment was anything to go by. In an order to the unit in August from its Commanding Officer, Lieutenant-Colonel Salmon, he mentions its poor discipline and the numerous complaints that had been received from local people particularly relating to vandalism and theft of food. The order threatens severe penalties for future offenders.¹¹⁸ Also, although training hard was good for morale generally throughout the Home Forces, too much training could diminish it again. Thus, in the case of the Hastings and Prince Edward Regiment, having trained strenuously in counter-attacking on an almost daily basis throughout August and September 1940, absenteeism rose as many of the men became ‘fed up’ according to a Company Commander’s Conference on 3 August.¹¹⁹ According to the account of the meeting, the lack of leave made the problem worse given that the shortage of petrol had curtailed the bus trips that could be laid on to local towns.

In summary, there is some evidence (albeit on a sample basis) that discipline amongst formations within both XII Corps and the GHQ Reserve suffered as the weeks went by in the summer of 1940, given long periods of guard-duty at high states of high alert and/or exhausting periods of near-constant training as part of counter-attacking forces. However, the absence of ‘Part II Orders’ in most war diaries makes it very hard to judge the scale of the issue. It is thus not possible to say what impact it had on overall morale or upon fighting capability - but it must have had some impact.

¹¹⁸ TNA, WO 179/118, war diary of Hastings and Prince Edward Regiment, 1 Canadian Brigade, 1 Canadian Division, *Order from Lieutenant-Colonel Salmon*, dated 1 August 1940.

¹¹⁹ *Ibid.* entry for 3 August 1940.

Amenities and Equipment

Furthermore, morale was inevitably further diminished by the general lack of amenities for the troops awaiting a potential invasion. Jeremy Crang in his study, underlines how important living conditions are to morale, noting that the Army's own report into morale in September 1940, drew attention to conditions in the makeshift camps that soldiers often found themselves in upon their return from Dunkirk – in particular the inadequacy of the messing arrangements and the lack of basic amenities.¹²⁰ The subject of living conditions was also raised in Brigadier Keynon's 1940 report for the War Office on Army morale, with the observation that men were frequently left unoccupied in their quarters for long periods each day, that their food needed dramatic improvement and that there were few facilities for hot baths.¹²¹ Furthermore, one of the soldiers Keynon interviewed complained that his accommodation was, 'Worse than anything I experienced in France and Belgium'. Much of this is also reflected in the findings on amenities from war diaries with XII Corps and the GHQ Reserve in the summer of 1940. For instance, Frederick Jane, a private in the 5th Battalion, Somerset Light Infantry, based near Lydd, describes how, in addition to manning defences every night and occasionally being machine-gunned by the Luftwaffe, he was billeted on the beach itself in all weathers and 'stood-to' everyday behind a wall made of shingle.¹²² For those in makeshift camps in what turned out to be a long hot summer in 1940, there were also numerous hygiene issues that are mentioned in battalion war diaries that would have impacted morale.

For example, the 1st Battalion, London Rifles, in Kent were forbidden from washing under taps due to the water shortage, from mid-July onwards.¹²³ And the war diary of 9th Royal Fusiliers who were under canvas guarding the beaches of north Kent, reveals that more stringent instructions on hygiene were outlined in Battalion Order No.78 on 29 July – which re-emphasised the need to rinse plates properly and for officers to supervise a weekly shaking out of all blankets.¹²⁴ Furthermore, Battalion Order No. 175, on 25 September, even stipulates

¹²⁰ Crang, Jeremy, 'The British Soldier on the Home Front: Army Morale Reports, 1940-45', in *Time to Kill: the Soldier's Experience of War in the West, 1939-45*, ed. by Paul Addison and Angus Calder, (London: Random House, 1997, pp. 60-74, (p. 62).

¹²¹ IMW, Document Archive, No. 3868, Box 84/8/3, Report by Brigadier Kenyon, *Army Morale*, dated 29 September 1940.

¹²² IWM Sound Archive, No. 22163/1, Frederick Arthur Jane, Private, 5th Battalion, Somerset Light Infantry, 45 (West Country) Division.

¹²³ TNA, WO166/4514, War Diary of 1st Battalion, the London Rifles, 2 London Brigade, 1 (London Division), August 1940.

¹²⁴ TNA, WO 166/4534, War Diary of 9th Royal Fusiliers, 1 London Brigade, 1 (London Division), July and September 1940, *Battalion Order No. 78*, dated 29 July 1940.

that men should sleep head to toe in tents, so as to minimise the risks of infectious diseases – which presumably followed the outbreak of something debilitating.¹²⁵ And when Lieutenant-Colonel John Carew of the 5th Battalion, Duke of Cornwall's Light Infantry, attended a 136 Brigade Commanding Officers' conference in New Haven in July 1940, the unit's war diary records that he returned with further instructions regarding hygiene, which included the stipulation that, 'This is the season when flies are breeding. In many cases latrines are near the men's places of dining and cooking. Latrines are to be made fly-proof – otherwise there is a serious risk of disease spreading.'¹²⁶ Also, taking an example from outside XII Corps and the GHQ Reserve, but one that has obvious relevance, Harry Miller, of the 12th Field Hygiene Section, revealed that his role inspecting the camps and billets used by 48 (South Midland) Division in Devon, required him to deal with numerous cockroach infestations in unit kitchens that summer.¹²⁷ Finally, when the commanding officer of the 7th Battalion, Devonshire Regiment, inspected its billets and cook house in Rye on 5 September, he was concerned enough to note that the condition of both was, 'Dirty, unsanitary and in need of immediate improvement'. He also made it clear that officers needed to take greater responsibility for ensuring that their men's billets met the correct standard and that they were keeping clean.¹²⁸ This was often no easy task for many troops in Kent and Sussex in the summer of 1940 as, owing to a lack of transport, keeping clean often involved a weekly march into the local town to visit the public-baths. For example, Herbert Harwood a private in C Company, 4th Battalion, Queen's Own Royal West Kent Regiment, stated that, 'To get a bath we had to march from Walton on the Hill to the swimming baths at Redhill and then march back again...so it didn't do you any good whatsoever'.¹²⁹

Furthermore, for ordinary soldiers, the poor living conditions, the haphazard approach to hygiene (particularly if they were under canvas) and the poor quality of food, doubtless took their toll upon morale, not least because they were hard to compensate for with other distractions. Leave was cancelled during the frequent periods of 'standing-to' along the south coast, local dances were only possible if troops were billeted in coastal towns that had not

¹²⁵ Ibid., *Battalion Order No.175*, dated 25 September 1940.

¹²⁶ TNA, WO 166/4216, War Diary of 5th Battalion, the Duke of York's Light Infantry, 136 Brigade, 45 (West Country) Division, *Minutes of 136 Brigade Commanding Officers Conference*, July 1940.

¹²⁷ IWM, Sound Archive, No. 18682/1, Harry Miller, Private, 12th Field Hygiene Section, RAMC.

¹²⁸ TNA, WO 166/4201, war diary of 7th Battalion, the Devonshire Regiment, 45 (West Country) Division, September 1940.

¹²⁹ IWM, Sound Archive, No. 20769/3, Herbert Harwood, Sergeant, 4th Battalion, Queen's Own Royal West Kent Regiment.

virtually closed-up ‘for the duration’ and for those in camps in the countryside, visits from mobile cinemas were few and far between. Indeed, according to the minutes of an Eastern Command Conference in September 1940, there were just two mobile cinemas per corps across the Command by then.¹³⁰ That said, some units were lucky. The men of C Company, 5th Battalion, Queen’s Own Royal West Kent Regiment, found themselves (in early 1941) billeted at Bates Farm in Wittersham, (owned by an American Banker named Drexel), where the barrack rooms even had, ‘hot and cold basins inlaid in teak chests’.¹³¹ However, this appears to have been very much the exception to the norm and on the assumption that the fragmented insights into poor amenities provided by numerous primary sources, can be extrapolated across XII Corps and the GHQ Reserve, the overall negative impact upon morale of poor amenities, as the summer of 1940 wore on, should not be underestimated.

The strengths and (all too frequent) weaknesses of the Army’s equipment in 1940, together with the scarcity of key weapons in the wake of Dunkirk will be explored in Chapter Two, (covering the Physical Component of ‘Fighting Power’). However, the degree to which issues with the quality or quantity of equipment may have impacted upon morale within XII Corps and the GHQ Reserve as the invasion crisis reached its peak, needs examining here. As ever, the ‘nebulous’ nature of morale makes this challenging to undertake especially so long after the event but, by the summer of 1940, reports of how different infantry weapons had performed in France had circulated across the Home Forces. For example, the inability of the Boyes anti-tank rifle to penetrate the armour of medium (i.e., Mk III and Mk. IV) panzers in France, must have caused concern to the front-line troops tasked with repelling an invasion, once this fact became widely known. It is also reasonable to assume that the well-documented shortages of the 2pdr anti-tank gun and the 25pdr field gun, (as outlined in detail in Chapter Two), would have contributed to a belief amongst troops that repelling an invasion might be difficult, not to mention dangerous.

Within XII Corps, numerous examples of negative sentiment about the equipment situation can be found in personal accounts and memoirs. For example, Douglas Rosewarn, (as already noted a Private based around Dungeness), recalls that his unit had rifles and Bren guns but little

¹³⁰ TNA, WO 166/75, Eastern Command, Quartermaster, 1940, Minutes of Conference on Winter Training, Accommodation and Amenities, 20 September 1940.

¹³¹ IWM, Document Archive, No. 22279, Memoir of Major G. Dyas, 5th Battalion, Queen’s Own Royal West Kent Regiment, Chapter V, p. 62.

else in the summer of 1940 and that the lack of anti-aircraft guns made them vulnerable during the Luftwaffe's regular visits. He also recalls that artillery was so scarce that telegraph poles under netting had been installed to make the Germans think they were guns.¹³² Not surprisingly, enemy tanks were viewed by many as a particularly worrying threat. However, over in the vital port of Newhaven, anti-tank guns were so scarce in August 1940, that the commander of the Newhaven Sub-Sector issued a note on ad-hoc anti-tank devices, in which his units were instructed, (presumably as a last-ditch tactic), to erect 'Curtain Obstacles' across narrow roads on the basis that these would force German tank personnel to leave their armoured vehicles in order to investigate, at which point they could be attacked by troops lying in wait.¹³³ The fear of what enemy tanks might do if unmolested, coupled with the lack of anti-tank guns, also led to the notion of formations being dedicated to 'tank hunting' using, amongst other weapons, so-called 'sticky bombs' to destroy the track of tank which had been parked up at night.¹³⁴ A dangerous task indeed.

Tank Hunting Platoons were subsequently soon formed in all front-line Home Forces units – particularly within XII Corps, and were often equipped with bicycles or in, a few cases, motor bikes. For example, within the 2/6th Battalion, Queen's Royal Regiment of West Surrey, a small team was formed which, according to Operational Instruction No.1., would have sought out tanks and attacked them with, 'Grenades and Molotov cocktails.' For those unfortunate enough to be picked for 'tank hunting' duties, the impact upon morale must have been marked, especially if a formation had previously come against German tanks in France and so knew how difficult they were for infantry to deal with, even when stationary. Given that the men the 2/6th Battalion had (as noted earlier) been overrun by large numbers of German tanks heading along the Somme valley in May 1940, they must have been very wary of hunting tanks, armed only with 'sticky bombs'.¹³⁵ Attacking a German tank at very close range, even at night, would have been a suicidal act on most occasions and the notion that such action was being asked of them, must have filled many soldiers in the so-called 'Tank Hunting Platoons' with a sense of dread – even if they did not choose to express it.

¹³² IWM, Sound Archive, No. 17500/1, Douglas Rosewarn, Private, 5th Battalion, Somerset Light Infantry, 135 Brigade, 45(West Country) Division.

¹³³ TNA, WO 166/4216, war diary of 5th Battalion, Duke of Cornwall's Light Infantry, 135 Brigade, 45(West Country) Division, note on anti-tank devices, dated 27 August 1940.

¹³⁴ For a full account of the development and planned use of the so-called 'Sticky Bomb' see, McKinstry, *Operation Sea Lion*, pp. 113-114.

¹³⁵ TNA, WO 166/4499, war diary of 2/6th Battalion, Queen's Royal Regiment of West Surrey, 35 Brigade, 45 (West Country) Division. September 1940.

Such anxiety amongst ordinary (mainly territorial) troops facing an invader in the fields of Kent and Sussex would not have been soothed by the knowledge that their efforts would be supported by the two-inch mortars that each battalion possessed. For it appears to have been widely known by troops by September 1940, that both the Army's two-inch and even its three-inch mortar, had lacked fire-power in France – as Chapter Two will examine. Furthermore, by the contrast, the German 8cm mortar had proved both devastating and highly accurate. Matthew Smith, for instance, a Private in the 2nd Battalion, Hampshire Regiment underlines in his testimony that the German 8cm mortar was so much better than the British two-inch equivalent.¹³⁶ But for many soldiers who had not yet faced the German Army the simple fact that equipment was in short supply must have played its part in fostering anxiety. For instance, one young Officer Cadet, Geoffrey Bird, wrote in his memoir that he patrolled Folkestone's harbour wall in the summer of 1940, armed only with, 'a rifle, a fixed bayonet and 5 rounds of ammunition', conscious that, 'the enemy was only twenty miles away'.¹³⁷ Many such men must have wondered (privately) what possible hope they had in the event of an actual invasion, especially given the Army's experience in France just a few month's previously.

The impact of morale of the defeat in France

The impact of having been soundly beaten by the Wehrmacht in May 1940 must have had a significant impact upon the morale of many of those who had fought with the British Expeditionary Force. After all, for all the sense of 'deliverance' that the Army had experienced at Dunkirk, in the words of Alan Allport, 'a defeat it had been, without question'.¹³⁸ Three weeks of so-called 'fighting withdrawal' under conditions of growing chaos and increasingly intense air assault, had major repercussions upon the morale of the forces in France, not to mention creating considerable bitterness and wounded pride. Many of the soldiers felt that they had been beaten by a much stronger enemy. For instance, Corporal W.R. Littlewood of the Royal Engineers, in response to the low morale he saw around him during the retreat, later commented that, 'We were beginning to think that the Germans were almost superhuman'.¹³⁹ These sentiments were echoed by George Self, an NCO in C Company of the 8th Battalion,

¹³⁶ IWM, Sound Archive, No. 6325/3, Matthew Smith, Private, 2nd Battalion, Hampshire Regiment, 1 Guards Brigade, 1 Division.

¹³⁷ IWM, Document Archive, No. 27241, memoir of Major Geoffrey Bird, 4th Battalion, Hampshire Regiment, entitled; *An Unintentional Soldier*, p. 5.

¹³⁸ Allport, *Browned Off and Bloody Minded*, p. 56.

¹³⁹ IWM, Document Archive, No. 336, Private Papers of Corporal W.R. Littlewood, Royal Engineers.

Durham Light Infantry, part of one of the ‘first-line’ territorial divisions sent to France. By the time he and his fellow soldiers got to Ramsgate morale was, according to him, very low and everyone knew ‘we’d been chased out of France’.¹⁴⁰ This sense of shame and of failure also effected the five regular divisions. Brian Horrocks, then a brigadier commanding 11 Brigade, 4 Division, in France, wrote in his autobiography that when he and his men finally docked at Ramsgate, everyone was astonished at the cheering crowds given that, ‘we could not be said to have covered ourselves in glory in our first encounter with the Germans’.¹⁴¹ And George Teal, a regimental signaller in the HQ Company of the 1st Battalion, Coldstream Guards, having fought in the action at Louvain states that, ‘It was terrifying for us...very frightening’...and having escaped at Dunkirk he reflected that, ‘the mauling we took in front of Louvain our battalion never really recovered from.’¹⁴²

Finally, Herbert Webber, a Private in the Sussex Regiment, recounted how his unit had advanced into Belgium to stop the Germans only to discover that, ‘We weren’t a match for them’. Indeed, only twenty-five percent of his battalion were left by the time he reached Dunkirk.¹⁴³ It is this notion of having been out-classed by the Wehrmacht in France that must have had the greatest impact upon Army morale in England generally in the summer of 1940, as the true extent of the disaster that had taken place in France permeated through the Home Forces – despite how the newspapers and the government portrayed events at Dunkirk. And for some of those returning from France, it had all been too much. According to Harry Garret, a gunner with the 52nd Anti-Tank Regiment, having endured heavy German shellfire while defending the Dunkirk perimeter, his unit suffered several desertions when it returned to England. As he puts it, ‘Lots of chaps said blow this, I’ve had enough of this.’¹⁴⁴ This understandable mindset is also echoed by the author Margaret Kennedy, who witnessed a Dunkirk train coming through Woking station in June 1940 and noted in her account of the war years ‘There was no cheering this time. The men were utterly exhausted and stared out of the windows with blank, indifferent eyes’.¹⁴⁵

¹⁴⁰ IWM, Sound Archive, No. 10413/7, George Self, NCO, 8th Battalion, Durham Light Infantry, 50 (Northumbrian) Division.

¹⁴¹ Brian Horrocks, *A Full Life* (London: Leo Cooper, 1974), p. 91.

¹⁴² IWM, Sound Archive, No 18698/2, George Teal, Signaller, 1st Battalion Coldstream Guards, 7 Guard’s Brigade, 3 Division.

¹⁴³ IWM, Sound Archive, No. 21012/1, Herbert Webber, Private, 4/5th Battalion, Royal Sussex Regiment.

¹⁴⁴ IWM, Sound Archive, No. 20521/2, Harry Garret, Gunner, 52nd Anti-Tank Regiment.

¹⁴⁵ Margaret Kennedy, *Where Stands the Wingèd Sentry*, (first published in 1941), (Bath: Handheld Press, 2021), p. 53.

As the true nature of what had happened permeated across the rest of the Home Forces in the summer of 1940, the notion that the German Army might need to be faced again, albeit on British soil, must have been worrying indeed. This is likely to have been a particular issue amongst formations now within XII Corps and the GHQ Reserve which had been part of the British Expeditionary Force and were re-equipping and re-forming. It is worth recalling that these included: 1 Armoured Division, 1 Army Tank Brigade, 42 (East Lancashire) Division, 3 Division and 35 Brigade. The fate of the three third-line territorial 'digging battalions' of the Queen's Royal Regiment of West Surrey that now made up 35 Brigade has already been mentioned, but it is worth noting here that the 2/6th Battalion at Drucat and the 2/7th Battalion at Epargne suffered large casualties and many of their number were taken prisoner. Furthermore, the survivors of the unexpected engagements with panzer formations had to swim the River Somme, before walking most of the way to Cherbourg where they were evacuated on 7th June. The war diary of the 2/6th Battalion notes, amongst other issues, the lack of communications from above, the lack of training and the confusion that their commanding officers were confronted with.¹⁴⁶ Following this experience and now guarding the Isle of Sheppey, the appetite of 35 Brigade to fight German forces again only a few weeks later was (presumably) low.

The same can doubtless be said of other formations within XII Corp and the GHQ Reserve that had lost men in France together with most of their equipment and, in some cases, no little amount of their self-belief. The high tank losses (to German anti-tank guns) experienced within 1 Armoured Division in France, especially during French-organised counter-attacks against German bridgeheads over the Somme, are examined in Chapter Two. The morale implications of these losses as the division re-formed back in England as one of the key mobile formations within the GHQ Reserve and started to receive new deliveries of cruiser tanks, must have been significant. The same was undoubtedly true for the survivors of 4th Royal Tank Regiment (1 Army Tank Brigade), one of two (regular) Army tank regiments that had fought in the counter-attack at Arras on 20 May. Again, its losses had been heavy, especially amongst its (obsolete) Mk I infantry tanks. One of its officers, Peter Vaux concludes that, having sustained 35% casualties at Arras, 'We weren't in the right league to deal with a German panzer division'.¹⁴⁷ To make matters worse, the ship carrying many of the survivors of the 4th Royal Tank

¹⁴⁶ TNA, WO/166 4499, war diary of 2/6th Queen's Royal Regiment of West Surrey.

¹⁴⁷ IWM, Sound Archive, No 20950/1, Peter Vaux, Officer, 4th Royal Tank Regiment, 1 Army Tank Brigade.

Regiment out of Dunkirk a week later, was attacked by three Messerschmitt's, leading to a further twenty-three men being killed. Richard Edgecombe, a tank driver who was on board recalled that, 'The scuppers were flowing with blood,' and that their ship was held for two hours outside Dover, to prevent anyone seeing the carnage – an action that led to even more deaths amongst the seriously wounded.¹⁴⁸ Although after Dunkirk the 4th Royal Tank Regiment was slowly re-equipped in Redhill with a full establishment (by September) of 52 Mk II 'Matilda' infantry tanks, one cannot help wondering what the true impact of these dreadful experiences was upon the overall morale of its tank crews.

The same is true for 42 (East Lancashire) Division (part the GHQ Reserve's IV Corps), which comprised 125, 126 and 127 Brigades and which suffered significant casualties in France. For example, within 125 Brigade, the 6th Battalion Lancashire Fusiliers found itself engaged in heavy fighting against tanks at Merchin on the 21 May, where it suffered some 83 casualties. A further 30 men were killed and 130 wounded when its survivors managed to board a destroyer at Dunkirk, on the 27 May, that was then attacked by German fighters.¹⁴⁹ Furthermore, within 127 Brigade, the 4th Battalion, East Lancashire Regiment, lost 130 men killed, wounded, or taken prisoner in the withdrawal to Dunkirk.¹⁵⁰ And the 5th Battalion, Manchester Regiment lost a further 85 men – with an unspecified number also having gone absent without leave.¹⁵¹ Finally, 126 Brigade, which alone of the three was tasked with holding a section of the Dunkirk perimeter, suffered considerable losses there that included 22 killed, 62 wounded and 39 missing from 1st Battalion, East Lancashire Regiment.¹⁵² Indeed, Jim Smith, a Private in the 4th Battalion, East Lancashire Regiment, (who joined up too late to fight in France), recalls seeing 4th Battalion troops coming back from Dunkirk. In addition to stating that it took many weeks before the men looked like soldiers again, he admits he was struck by the fact that few of them would talk about what they had gone through. 'They just wanted to forget it', he reveals.¹⁵³ Thus, it is hard to see how this division's morale was not at something

¹⁴⁸ IWM, Sound Archive, No. 32849/3, Richard Edgecombe, Driver, 4th Royal Tank Regiment, 1 Army Tank Brigade.

¹⁴⁹ TNA, WO 167/780, war diary of 6th Battalion, Lancashire Fusiliers, 125 Brigade, 42 (East Lancashire) Division, May 1940.

¹⁵⁰ TNA, WO 167/783, war diary of 4th Battalion, East Lancashire Regiment, 127 Brigade, 42 (East Lancashire) Division, May 1940.

¹⁵¹ TNA, WO 167/789, war diary of 5th Battalion, Manchester Regiment, 125 Brigade, 42 (East Lancashire) Division, May 1940.

¹⁵² TNA WO 167 /782, war diary of the 1st Battalion, The East Lancashire Regiment, 126 Brigade, 42 (East Lancashire) Division, May 1940.

¹⁵³ IWM, Sound Archive, No. 18740/3, Jim Smith, Private, 4th Battalion, East Lancashire Regiment, 127 Brigade, 42 (East Lancashire) Division.

of a low ebb in the immediate aftermath of Dunkirk, even if it subsequently began to recover. Crucially though, the degree to which it had improved by September 1940 when the formation would have been acting as a key mobile counter-attacking force, is hard to assess.

But it would probably be fair to conclude that many of its troops would have felt a high degree of anxiety at the prospect of undertaking the role being asked of them given what they had already been through. Interestingly, this understandable ‘fear’ of the Wehrmacht amongst some components of the Army appears to have extended throughout the Second World War. In his 1948 novel, *From the City to the Plough*, the ex-soldier Alexander Baron describes many of his actual experiences of combat with 43 (Wessex) Division in Normandy in 1944. He describes his fellow platoon members as, ‘frightened country boys’, facing enemy troops who, man for man were, ‘craftier and better trained, [and] who had been reared as warriors’, before going on to add that, in his view, the English forces in Normandy, ‘were outfought at every turn’.¹⁵⁴ And this was after four years of training in England. Back in September 1940, 43 (Wessex) Division was a well-equipped but unbloodied first-line territorial formation attempting to learn how to fight alongside tanks in a counter-attacking role for the first time. In summary then, the impact of the defeat in France upon morale across XII Corps and GHQ Reserve formations in the summer of 1940 should not be under-estimated and is likely to have been much more pronounced than has been recognised to date in the historiography.

The sense of ‘trepidation’ amongst these front-line formations must have been further enhanced as news spread across the Home Forces in the summer of 1940 of the quantity and quality of the ground support given to the German Army by the Luftwaffe in France. Even those at the top of the War Office, aware of the Luftwaffe’s contribution in the Spanish Civil War, would still have been surprised at how its prowess at tactical ground support had progressed by 1940; a capability underlined by Lieutenant-General Claude Auchinleck’s report upon his return from Norway at the end of May 1940 (where he had been Commander-in-Chief of British and French Ground Forces), when he wrote a personal letter to the Chief of the Imperial General Staff, in which he talked of the huge impact upon his troops of continuous low-level Luftwaffe attacks, in particular by its, ‘highly-accurate dive-bombers’.¹⁵⁵ By then,

¹⁵⁴ Alexander Baron, *From the City, From the Plough*, (London, Jonathan Cape, 1948), p. 137.

¹⁵⁵ TNA, WO 106/1962, Lieutenant- General Auchinleck’s First Report from Norway, May-June 1940, Extracts from a letter marked ‘secret and personal’ from Lieutenant-General Auchinleck to the Chief of the Imperial General Staff, dated 30 May 1940.

of course, the British Expeditionary Force in France had already experienced at first hand the impact that constant attacks by the Luftwaffe could have upon the morale of British soldiers, especially as they retreated to Dunkirk – an impact further underlined by The Bartholomew Committee’s report.¹⁵⁶ Morale levels were further worsened, it concluded, by the perception that the Air Force appeared to be able to do relatively little to protect British troops from attack from the air, or to deliver meaningful tactical air support to them. Exploring in detail whether this allegation was fair or unfair is complex and lies beyond the scope of this study, but the sentiment it created was strong.

Suffice to say here that subsequent analysis has shown that the Royal Air Force provided much more support than the troops on the ground could see, particularly over Dunkirk. For example, Hugh Ironside, a Hurricane pilot who personally flew two to three sorties a day during the evacuations, (refuelling at Manston on the way out and back), was often so tired he slept on the hanger floor with his parachute on. ‘I was there, every bloody day’ he states but he also explains that whereas they could see the JU 87 Stuka’s attacking the beaches below, there were simply too many Messerschmitt 109s’s up at 15,000ft to allow them to descend and engage.¹⁵⁷ But, despite this and countless other stories from individual pilots, the fact remains that morale in France suffered as a result and many in the Army felt let down. So much so in fact that as late as August 1940, Eric Chandler, a Bristol Blenheim air gunner, recalls that special coaches had to be laid on to take him and his colleagues into Ipswich for a night out, to protect them from furious soldiers.¹⁵⁸ To some extent, as Hew Strachan has pointed out, the Air Force found itself being made a convenient scapegoat by the regular Army for the events in France, but the fact remains that the apparent lack of tactical air support when it mattered did have an impact upon morale, never mind fighting capability generally.¹⁵⁹

Indeed, this deficiency in tactical air support became obvious to many troops on the ground shortly after the German attack on 10 May, as British forces advanced to the so-called ‘Dyle line’. Once there they were to discover that the air reconnaissance capability of the Royal Air

¹⁵⁶ TNA, CAB 106/220, Final Report of the Bartholomew Committee on Lessons to be Learnt from the Operations in Flanders, June 1940-October 1940.

¹⁵⁷ IWM, Sound Archive, No. 13101/2, Hugh Ironside, Wing Commander and Hurricane Pilot, No.151 Squadron.

¹⁵⁸ IWM, Sound Archive 11036/2, Eric Chandler, NCO Air Gunner (later a Flight Lieutenant) Bristol Blenheim, No. 107 Squadron.

¹⁵⁹ Hew Strachan, ‘The Territorial Army and National Defence’, in *The British Way in Warfare: Power and the International System, 1856 -1956*, ed. by Keith Neilson and Greg Kennedy, (Farnham: Ashgate, 2010), p. 172.

Force's Westland Lysanders was limited by their vulnerability both to ground fire and Luftwaffe fighters – something made worse by the lack of British fighter cover. For example, William Faure, an officer in the Coldstream Guards, recalled seeing most of the Westland Lysander aircraft providing them with air reconnaissance being 'Shot out of the sky like pheasants'.¹⁶⁰ This degradation of aerial intelligence must have diminished Army morale during the fierce but unsuccessful fighting to hold Louvain, never mind other fortifications along the River Dyle. And the fact that 118 out of the 175 Westland Lysanders sent to France were lost, is testimony to the challenges of obtaining air reconnaissance during the course of the campaign more generally.¹⁶¹ By the time of the British counter-attack at Arras on 21 May 1940, by a small force of infantry and tanks, no allied reconnaissance planes patrolled the skies, something which helped the Germans to address the breakthrough very quickly – and which, (in the opinion of Greg Baughen), then helped trigger Lord Gort's decision to fall back on Dunkirk.¹⁶²

But experiencing the Luftwaffe's capability in France also raised the understanding within the Army of what tactical support could contribute to the battlefield. This is well demonstrated by the feature film, *Dunkirk*, made in 1958.¹⁶³ Here, a group of lost British soldiers led by a corporal (played by John Mills), come across a concealed Royal Artillery battery in the French countryside just as the battery opens fire on an advancing German formation. The soldiers are promptly told to, 'Leg it quick, before the Stuka's get here', and then watch in amazement from a distance as the battery is pulverised from above only minutes later. Although this is a fictional account, many testimonies from soldiers who fought in France recount similar tales. Alfred Tyers for example, an NCO in the Durham Light Infantry, recalls that outside Dunkirk the Luftwaffe often came in 'at tree-top height' to attack them, something they had expected the Royal Air Force to prevent.¹⁶⁴ And Peter Jeffries, an officer in the same battalion talks of the heavy dive-bombing his exposed company endured from over twenty Stuka's at the tail end of the counter-attack at Arras. As he recounts 'We had never seen anything like it before....it was frightening.'¹⁶⁵ Not only did these attacks take their toll upon morale but the Army's

¹⁶⁰ IWM, Sound Archive, No. 6611/3, William Faure Walker, Officer, 1st Battalion, Coldstream Guards, 7 Guards Brigade, 3 Division.

¹⁶¹ Royal Aviation Museum of Western Canada, article; *Lysander, By the Light of the Silvery Moon*, <http://www.royalaviationmuseum.com>, [accessed 5 June 2020].

¹⁶² Baughen, *The RAF in The Battle of France and The Battle of Britain*, p. 9.

¹⁶³ *Dunkirk*, Ealing Studios, 1958, (based on the novel, *The Big Pick-Up* by J.Bradford and E.Butler).

¹⁶⁴ IWM. Sound Archive, No. 31695/6, NCO, 6th Battalion, Durham Light Infantry.

¹⁶⁵ TNA, Sound Archive No. 9237/1, Peter Jeffries, Officer, 6th Battalion, Durham Light Infantry.

expectations of tactical ground support from the Royal Air Force in France would not have been dampened by the Field Service Regulations at the time – which emphasised the role that the air force should play in bombing enemy troops and vehicles as part of an attack.¹⁶⁶ It is also important to note in fairness to the Royal Air Force (and without being drawn further into this debate), that the effectiveness of its forces during the Battle of France was not helped by the fact that two different formations were involved, the so-called Royal Air Force Component and the Advanced Air Striking Force. Further complexity was created by the need to co-operate with and to some extent to be incorporated into the efforts of the French Air Force across a wide front.¹⁶⁷

Thus, back in England, the question as to whether the Air Force would make a better job of helping them next time around must have weighed upon the minds of many in the three ‘frontline’ Army corps under investigation in the summer of 1940 - whether they were ‘standing- to’ on the beaches of Kent and Sussex or, if part of the mobile GHQ Reserve, waiting for the order to move into Kent and Sussex from their bases around the Surrey hills, the Thames valley and Salisbury Plain, to counter-attack an invader. Any notion that the Air Force might again struggle to provide the required level of ground support to these forces would presumably have been worrying indeed. Lieutenant-General Claude Auchinleck, now commanding Southern Command, remarked at Brooke’s first conference for Home Forces Regional Commanders that, from a morale perspective, the most important point was to convince troops that, ‘bomber support really would arrive’.¹⁶⁸ Sadly, the Army’s dissatisfaction with tactical support seems to have worsened, rather than improved by November 1940, given the comments Brooke received when he asked Auchinleck to sound out Southern Command’s senior commanders on the proposed formation of a new Command for Army Co-operation. In his response to Auchinleck, the Commander-in Chief of VIII Corps made the point that when the Army next asked for tactical air support, ‘it will be a pity if the Army is trying to win the war in one place and the Royal Air Force in another’.¹⁶⁹ It is therefore noteworthy that Brooke, when writing to the Under Secretary of State for War a year later, found it necessary to underline what he saw as the continuing unwillingness of The Royal Air Force to prioritise

¹⁶⁶ War Office, Field Service Regulations, 1935, Volume II, Chapter VI, The Attack, Section 66 (Aircraft in the Attack) and Volume III Chapter V, The Offensive Battle, Section 23, (Aircraft in the Offensive Battle).

¹⁶⁷ For more information on the organisation of air support in the Battle of France, see: TNA, WO 233/60, Draft Report on Air Support for the Army, 1939-1945, by Lieutenant-Colonel C. Carrington, dated 10 June 1945.

¹⁶⁸ Ibid.

¹⁶⁹ TNA, WO 199/1648, C-in-C Home Forces Conference: points raised by Corps and Divisional Commanders, November – December 1940, Memo from C-in-C VIII Corps to Southern Command HQ, dated 2 December 1940.

tactical air support and the detrimental impact this would have upon Army morale in the event of an invasion.¹⁷⁰ Finally, it is worth also noting that the War Office's subsequent study of Army discipline in World War Two (mentioned earlier), concluded that air attack had, especially in the war's early years, proved to be a major challenge to Army discipline and thus morale, given , 'the nervous strain imposed upon the soldier's mentality'.¹⁷¹ In summary then, from the perspective of the formations within XII Corps and the GHQ Reserve, tactical air support was, by September 1940, considered an essential component of their 'fighting capability' in the event of an invasion. Expectations were high. Had such support failed to materialise as German forces advanced inland supported by sustained Luftwaffe interventions, this would have had serious implications for morale.

One further aspect of the impact of the defeat in France upon Army morale generally, concerns the specific impact it doubtless had amongst the senior officers within XII Corps and the GHQ Reserve during the summer of 1940. Classifying 'senior officers' as those holding the rank of brigadier and above, there existed in September 1940, across XII Corps and the GHQ Reserve, some three corps commanders at the rank of lieutenant-general, ten major-generals commanding infantry or armoured divisions (including Dominion forces), plus an estimated further four or five on the staff of Eastern Command. In addition to these, there were around thirty brigadiers commanding front-line forces and (roughly) around a further twenty brigadiers in staff roles at either Eastern Command, the three Corps HQ's or the ten Divisional HQ's. In total therefore, this amounts to some eighty senior officers, of which only around fifteen (or 19%) had fought with British Expeditionary Force in France - most notably Lieutenant-General Sir Andrew Thorne who now commanded XII Corps from a Headquarters in Tunbridge Wells. What Thorne and the other senior commanders thought the likelihood was that an invasion could be defeated by XII Corps and the GHQ Reserve as the crisis reached its peak in September 1940, would be interesting to assess, as if their view was unduly negative it would have impacted their morale significantly. Sadly however, such an assessment is impossible not least because hardly any of them left behind written diaries and memoirs - at least according to The National Archive's Discovery search engine. Only Lieutenant-General Thorne left a collection of private papers and none of the eighty or so individuals contributed

¹⁷⁰ TNA, WO 193/678, Air Requirements of the Army, September 1939 to November 1945 (Historical Section), Memo from General Sir Alan Brooke to The Under Secretary of State at the War Office, dated 3 May 1941.

¹⁷¹ TNA, WO 277/7, War Office publication entitled *The Second World War, 1939-1945, Discipline*, 1950, Chapter IV, p. 21.

verbal testimonies to the Imperial War Museum's sound archive. However, it would have been only human for most of these men to have experienced a high degree of trepidation as the invasion crisis reached its peak, even if they kept their thoughts to themselves.

Certainly, Brooke himself felt considerable anxiety as the invasion threat was raised to 'imminent' in September 1940 and clearly felt far from convinced that repelling an invasion was a realistic proposition given the resources he had at his disposal - something he confided to his diary at the time, as noted in the Introduction to the study. He was not alone. Sir Auckland Geddes, who had been British Ambassador to the United States in the 1920's and who was now the Commissioner for Civil Defence for the South-East Region, wrote on 15 September, 'Clearly if the Royal Air Force cannot hold them in the air they will invade and our soldiers frighten me'.¹⁷² Furthermore, according to his biographer, Lieutenant-General Andrew Thorne was clear that his task commanding XII Corps was going to be very challenging given that, as he pointed out to Churchill in early July his divisions were 'Scarcely equipped and partially trained'.¹⁷³ In fairness, the situation had improved in some areas by mid-September, but even so he could be forgiven for acknowledging (privately) that the forces of XII Corps probably stood little chance of delaying an invasion for any length of time if landings took place.

Under Thorne in XII Corps, Major-General Claude Liardet, the 1 (London) Division's general officer commanding, must have viewed the situation in the summer of 1940 with considerable concern given the length of the Kent coastline and the fact that Dover, Folkstone and Ramsgate were likely to be priority targets for an invader needing to secure a port. In adjacent Sussex, Major-General Schreiber, commanding 45 (West Country) Division, wrote Thorne a note dated 1 September expressing frustration at the lack of reserves behind his troops along the Sussex coast, something which he claimed would make it hard to, 'Tackle the enemy before nightfall on the day of his landing'.¹⁷⁴ This 'gap' was subsequently addressed by Brooke but whether Schreiber believed that the additional forces would be sufficient we have no way of knowing. Another relevant source (from within the GHQ Reserve) is General Sir Brian Horrocks, then a brigadier commanding 8 Brigade within 3 Division, tasked in June 1940 with covering some ten miles of beaches between Shoreham and Rottingdean. In his autobiography,

¹⁷² Cambridge, Cambridge College Archives (CCA), Gedd 7/2 1010, Private Papers of Sir Auckland Geddes, memo dated 15 September 1940.

¹⁷³ Donald Lindsay, *Forgotten General, A Life of Andrew Thorne* (Salisbury: Michael Russell, 1987), p. 141.

¹⁷⁴ NAM, Private Papers of General Sir Andrew Thorne 3367-3494, Letter from General Schreiber, 1 September 1940.

(the only one of its kind within the group of senior officers mentioned earlier), he noted that ‘We wouldn’t have stood much chance against a well-organised invasion...’ And he went on to add that, ‘Fortunately, few people in this country realised quite how thin was the shield protecting them from Hitler’s victorious armies which were now just across the channel’.¹⁷⁵ Admittedly, these sentiments were expressed some months before the peak of the crisis in September (by which time 3 Division was based in Somerset), but they indicate that Horrocks, having already fought the Wehrmacht, was under no illusion at the time of just how dire the situation was. Churchill too, in the aftermath of Dunkirk, appears to have been concerned about not just the threat of invasion but also of the potential impact upon the morale of the nation. A memo from his office to Admiral Sir Bertram Ramsey on 6 July, reads; ‘The Prime Minister expects all His Majesty’s servants in high places to set an example of steadiness and resolution. They should check and rebuke expressions of loose and ill-digested opinion in their circles or by their subordinates.’ It also goes on to remind recipients of the severe penalties for spreading information likely to endanger morale.¹⁷⁶

By September 1940, as the perceived threat of invasion peaked, all the senior officers in XII Corps and the GHQ Reserve, would (one assumes) have had access to the military intelligence reports to be found in many corps and divisional war diaries, outlining the concentration of invasion barges in channel ports – the clearest possible indication that landings might be imminent. For example, the war diary of IV Corps Intelligence (within the GHQ Reserve) stated, on 15 September, that sufficient enemy shipping was now in Flemish and French ports to, ‘enable 275,000 to be carried across the channel’.¹⁷⁷ The same war diary on 18 September makes it clear that such an accumulation of shipping, ‘means that this cannot merely be a ruse’, and it was noted on 22 September that the whole corps had been brought to four-hour’s notice to move.¹⁷⁸ Meanwhile, 43 (West Country) Division’s headquarters was in receipt of Intelligence Summary No.66, which gave fulsome details of the build-up of invasion barges in the Scheldt Estuary and Intelligence Summary No.77, which built upon this with a port-by-port

¹⁷⁵ Brian Horrocks, *A Full Life*, (London: Leo Cooper, 1974), p. 93.

¹⁷⁶ CCA, RMSY 8/13, Private Papers of Admiral Sir Bertram Ramsey, Note from Sir Winston Churchill’s Office, dated 6 July 1940.

¹⁷⁷ TNA, WO 166/231, war diary of IV Corps, Intelligence, June 1940 - March 1941, entry for 15 September 1940.

¹⁷⁸ *Ibid.*, entries for 18 September and 22 September.

breakdown of the invasion fleet's scale and concluded that, 'A probable invasion is imminent'.¹⁷⁹

All of this must have made sobering reading for senior officers. Furthermore, it would have been difficult to keep such sentiment from the battalion commanders below this senior cadre - something that must, in turn, have impacted upon wider morale amongst the officer corps across XII Corps and the GHQ Reserve, especially when coupled with the equipment shortages amongst front-line units that will be explored in Chapter Two of this study. Furthermore, the widely distributed order that there was to be no withdrawal and that troops guarding the coast were to fight to the last round, would have concentrated the minds of all officers and indeed the ranks of soldiers beneath them, and must have increased anxiety generally and thus reduced morale further, even if few chose to reveal their private feelings. Finally, any senior officers within XII Corps who had been confident in September 1940 that the Royal Navy would, almost certainly, deal with any invasion attempt before it reached British shores would have had something of a shock when, in early 1941, Admiral Ramsay gave a presentation to them in Tunbridge Wells, in which he stated that an invasion was highly feasible not least because, 'The German Navy might be small but has plenty of E-Boats, which are perfect for escorting an invasion fleet.'¹⁸⁰

In summary then, the level of morale amongst this group of senior officers at the peak of the invasion crisis is likely to have been 'patchy', especially amongst those who had fought in France. Many of them must have privately considered that the realistic chances of defeating an invader who was so proficient, so well-equipped and so determined, were low and that therefore the country would soon have to 'seek terms'; a depressing thought indeed. Although comparisons between conflicts are often hard to make with any degree of robustness, it is worth recalling Alistair Horne's observations as to the speed of the collapse of morale amidst the senior officers in the French High Command in May 1940, once the tide of battle turned. According to him, at Vincennes, only six days after the German attack, one staff officer, 'Had his kit brought down in case of flight'.¹⁸¹ At the risk of straying into counter-factual history, if an invasion of Great Britain had taken place and German forces had established a significant

¹⁷⁹ TNA, WO 166/536, war diary of 45 (West Country) Division Headquarters, Intelligence Summaries No.66 and No.77, September 1940.

¹⁸⁰ CCA, RMSY 8/13, Private Papers of Admiral Sir Bertram Ramsay - Lecture given to officers of XII Corps, 21 April 1941.

¹⁸¹ Alistair Horne, *To Lose a Battle: France 1940* (London: Penguin, 1969; reprinted 1990), p. 464.

beach head, it is hard to argue that a similar collapse in morale within the senior leadership of the formations tasked with counter-attacking these forces might not have transpired if initial attempts to counter-attack had failed.

The potential impact of civilian morale upon fighting power

Finally, in terms of morale, it is important to try and evaluate the state of civilian morale in Kent and Sussex by September 1940 not least because, in the words of Brigadier Kenyon, in his report on Army Morale in 1940, it was inextricably linked with military morale.¹⁸² The logic of this is that, as time went by, the military forces based in these two counties became increasingly inter-linked with the local civilian communities, especially in coastal areas – not least because many soldiers were billeted in local homes or on the receiving end of regular local hospitality. Thus, low civilian morale or, in the event of an invasion, a collapse in civilian morale would have been immediately apparent to soldiers in the local vicinity and thus their own morale, in turn, might well have been diminished. Furthermore, from a practical standpoint there was a general fear amongst the military authorities that a panicked population would clog the roads leading into Kent and Sussex in their efforts to escape the fighting, thus delaying the arrival of GHQ Reserve forces – an understandable concern given what the British Expeditionary Force had experienced in France and Belgium. The concern about clogged roads is, for instance, well demonstrated by a meeting that took place in Sussex, on 20 September, when a Brigadier Whitfield (from 136 Brigade) met with Major-General Schreiber (commanding 45 (West Country) Division), together with the Mayor and Chief Constable of Eastbourne, to discuss the question of refugees and travel routes in the event of an invasion.¹⁸³ It was also clearly something that General McNaughton's VII Corps was also worried about in the event of 1 Canadian Division having to move (at pace and probably under Luftwaffe attack), from Dorking down into Kent or Sussex as a counter-attacking force – in what would have been a significant road movement. To prepare for this eventuality, on 1 September, three columns, each of one hundred vehicles, from 1 Canadian Division, undertook a road movement exercise to 'test' each of three routes from Dorking to Tenterten (on the edge of the Sussex wield). This exercise also involved both Traffic Control Companies and Police Special Constables, 'to practice keeping civilian traffic off the road'.¹⁸⁴

¹⁸² IMW, Document Archive, No. 3868, Box 84/8/3, 'Army Morale,' by Brigadier Kenyon, 29 September 1940.

¹⁸³ TNA, WO 166/992, war diary of 136 Brigade, 45 (West Country) Division, entry for 20 September 1940.

¹⁸⁴ TNA, WO 179/11, war diary of HQ Canadian Corps, General Staff, July to December 1940, VII Corps Operation Instruction No.3., Appendix 'B', dated 1 September 1940.

It should also be noted that the government in the summer of 1940 topped short of ordering an evacuation of the civilian population along the south coast. Indeed, even as the perceived threat of landing rose to new heights in September 1940, the War Cabinet took the decision not to evacuate the remaining 60% of civilians in the coastal towns from Brighton to Ramsgate who had not already left.¹⁸⁵ This was partly for logistical reasons and partly to avoid a national panic, given that the perceived threat of invasion was by now very high. The decision was taken despite the pleas of General Sir Alan Brooke, between 8 and 23 September, for a full civilian evacuation to take place.¹⁸⁶ Indeed, even in Dover, some 50% of the civilian population was still in place by September 1940.¹⁸⁷ Given all this, the level of civilian morale in Kent and Sussex as the invasion crisis grew becomes ever more important.

Unlike Army morale, civilian morale was measured in some detail by the Ministry of Information from 1939 onwards and is thus known to have plummeted after Dunkirk and then to have slowly recovered as the summer months went by, before dipping again as the perceived threat re-emerged - largely thanks to the build-up of invasion craft in channel ports.¹⁸⁸ This sense of pessimism can only have increased after Winston Churchill's speech on 11 September, in which he made it clear that an imminent invasion attempt was considered highly likely.¹⁸⁹ Even though he went on to claim that the nation's armed forces were ready to repel any such an invasion, that message may not have been truly believed by many, even if they did not say it in public. Indeed, it may not have been fully-believed by Churchill himself. His assistant private secretary at the time, John Colville, confided in his diary on 21 September that Churchill seemed more anxious about the prospect of an invasion than normal and that, 'he keeps ringing up the Admiralty and asking about the weather in the channel.'¹⁹⁰

Whatever the public actually believed after Churchill's speech, the tendency not to reveal fear to one's friends and neighbours is well demonstrated by the author Margaret Kennedy. She confided to her diary at the time of Dunkirk that she was 'simply terrified' and that she presumed that everyone was as frightened as her but that, 'as we never talk about it I don't

¹⁸⁵ Newbold, 'Planning and Preparations to Resist Invasion', p. 119.

¹⁸⁶ Ibid.

¹⁸⁷ TNA, CAB 79/6/54, War Cabinet: Chiefs of Staff Committee, minutes of meeting on 10 September, report entitled, *Home Defence*, by General Sir High Elle, Civil Defence Staff.

¹⁸⁸ For a full account of the ebb and flow of public morale in 1940, see: Robert Mackay, *Half the Battle: Civilian Morale in Britain during the Second World War*, (Manchester: Manchester University Press, 2003).

¹⁸⁹ Speech to the Nation, Winston Churchill, September 11, 1940.

¹⁹⁰ John Colville, *The Fringes of Power: Downing Street Diaries 1939-1955*, (London: Phoenix, 2005), (entry for 21 September 1940, (p. 245).

know.’¹⁹¹ But fear there certainly was, even as the immediate invasion worry that followed Dunkirk receded in the public’s mind. For instance, when Norman Bryant’s battalion from 43 (Wessex) Division arrived in Royston in Hertfordshire in the summer of 1940, he recalls that local people were convinced the German’s would invade and thus looked up to him and his colleagues because ‘they could only see one saviour and that was the Army’.¹⁹² The key point though is that civilian morale was seen as a key issue by the Army throughout the crisis. For instance, in late 1940, the minutes of an Army Commanders Conference within Southern Command (chaired by Lieutenant-General Claude Auchinleck and attended by Lieutenant-General Bernard Montgomery), reveal that there was sufficient concern about the morale of local people along the south coast to launch a programme of activity, including Army hospitality, whist drives, tombola’s and dances to help raise the public mood as winter approached.¹⁹³

It was therefore perhaps for reasons related to civilian morale, that Dominion troops were often paraded for the civilian population to see. Thus, according to newspaper pictures taken at the time, the two brigades of the so-called Imperial Australian Force marched through London shortly after their arrival in June 1940, even though their base was on Salisbury Plain. Also, a New Zealand private Thomas Beel, recalls how when his battalion (as part of two brigades of New Zealand troops), had marched into Kent in September 1940 to act as an addition reserve force (to counter-attack against Dover and Folkestone) in the event of invasion, they had been warmly cheered by local civilians along the way.¹⁹⁴ Finally, it needs to be remembered that the civilian population was not only concerned about the fear of invasion. Many, in 1940, were just as anxious about the economic implications for them of the conflict with Germany. For example, one retired teacher from Great Missenden in Buckinghamshire, who was also a Mass Observation diarist wrote on 18 September 1940, that she wondered how long people would put up with the privations of the war particularly given

¹⁹¹ Margaret Kennedy, *Where Stands the Wingèd Sentry*, (Bath: Handheld Press, 2021) (first published in 1941), p. 47.

¹⁹² IWM Sound Archive, No. 19594/1, Norman Bryant, Private, 5th Battalion, Hampshire Regiment, 128 Brigade, 43 (Wessex) Division.

¹⁹³ TNA, WO 199/1650, *Summary of Army Commanders Conference, Southern Command*, dated 9 November 1940.

¹⁹⁴ IWM Sound Archive, No. 13110/1, Thomas Beel, Private, 23rd Battalion, 5 New Zealand Infantry Brigade, 2nd New Zealand Division, Kent 1940. [NB: IWM Sound archive No.13110, wrongly lists Thomas Beel as serving in the 20th Battalion, 4 Brigade. It appears he originally joined the 20th Battalion, before transferring to the 23rd Battalion. Thus, he came to the UK in May 1940, rather than going straight to Egypt with 4 Brigade.]

that they were being offered little hope that their lives would be improved after it had ended.¹⁹⁵ It all adds up to a picture of civilian morale in the south-east of the country that was anything but high by the time of the invasion crisis.

A detailed study of civilian morale specifically in Kent and Sussex in the summer of 1940 is well beyond the scope of this study, but evidence underlines that a fear of invasion ran high. For instance, George Beardmore who lived in Kent, confided to his diary that he expected Canterbury to be devastated by bombs any day and that he was sure paratroopers would immediately follow, ‘turning our own selves into refugees trudging down English roads and lanes’.¹⁹⁶ Furthermore, the novelist Virginia Woolf, whose country cottage (Monks House) was just outside Lewes, wrote continually in her diary throughout August and September of her great fear of an invasion, to the extent that she and her (Jewish) husband even had a plan to gas themselves to death in their garage had the Germans come.¹⁹⁷ For many of those living near the coast morale would have doubtless been shaken when their towns began to be targeted by the Luftwaffe. The diary of a young art student, Miss M. Cooke, who worked on her father’s farm on Romney Marsh that summer is revealing in this regard. After living under the threat of invasion for some months and having also endured bombing (due to the farm’s proximity to a radar receiving station), she wrote of the prolonged fear she and her family felt living, ‘only forty miles from Boulogne’. By September her emotional strain was evident when she wrote that, ‘last night I had to get up eight times; the house kept shaking with bombs. This is a terrible war; it gets on your nerves so.’¹⁹⁸

These sentiments are also echoed in the personal testimony of Dennis Mulqueen, a piper with 1st Battalion, London Irish Regiment, stationed near the RAF Fighter Command airfield at Manston in north Kent, who states, ‘The civilians had the worst time of anyone....it must have been very frightening...’¹⁹⁹ Evidence of the strain on the people of Kent and Sussex can also be found in local newspapers at the time. It is there, for instance, in the numerous articles in June and July of 1940 in the *Hastings and St Leonards’ Observer* calling on people not to

¹⁹⁵ Becky Brown, *Blitz Spirit, 1939 – 1945, Compiled by Becky Brown from the Mass Observation Archive*, (London: Hodder & Stoughton, 2020), Diarist 5402, p. 76.

¹⁹⁶ *We Shall Never Surrender: Wartime Diaries 1939-1945*, ed. by Penelope Middelboe, Donald Fry and Christopher Grace, (London: Macmillan, 2001), p.67.

¹⁹⁷ Virginia Woolf, *Diary of Virginia Woolf, Vol 5, 1936 to 1941*, (London: The Hogarth Press,1980), entry for 13 September 1940.

¹⁹⁸ IWM, Document Archive, No. 2239, memoir of Miss M. Cooke, diary entry for 22 September 1940.

¹⁹⁹ IWM, Sound Archive, No. 17377/3, Dennis Mulqueen, Piper, 1st Battalion, London Irish Rifles, 1 London Brigade, 1 (London) Division.

leave ‘our historic town’, but to stay and help defend it.²⁰⁰ Anxiety is also evident in subsequent pieces urging people not to spread defeatist rumours – something that even led to a campaign by the same newspaper for townspeople to sign up to a so-called ‘anti-rumour pledge’.²⁰¹ And the same anxiety is prevalent in the constant warnings about fifth-columnists and in the apparent need for the newspaper to list the name and address of anyone fined by Hastings Police Court for even minor blackout infringements.²⁰² When Hastings was deliberately bombed, from late August onwards (leading to around two hundred civilian deaths), a prevailing sense of anxiety is also obvious in the angry letters to the editor about the lack of deep shelters.²⁰³

It is hard to see how the strain of it all and the fear felt by most of these civilians would not have been all too visible to the soldiers based around them, especially in the coastal towns. In the case of Hastings, the officers and men of the 6th Battalion, Devonshire Regiment, were spread out around the town with their headquarters just back from the coast at Battle. They would have had significant interactions with local townspeople (and for that matter the Local Defence Volunteers) as the weeks rolled by, just as the troops of the 8th Battalion would have done down the road in Bexhill-on-Sea. This extended well beyond weekly church parades and would have had added intensity given that the ‘exclusion zone’ (created along the south coast), was off-limits to civilians from elsewhere. Numerous war diaries from the units making up XII Corps in Kent and Sussex mention the generosity of local people towards the men from their battalions. Indeed, so frequently were soldiers from 35 Brigade (in north Kent) invited to dinner in local homes, that a specific order was issued in writing that men must not ‘loosen their tongues when enjoying hospitality in people’s houses’.²⁰⁴ This desire to reveal little to local civilians probably was only partially related to security. As Phillip Daniel, an officer with the 20th Light Anti-Aircraft Regiment (that was attached to 1 Armoured Division in Surrey in the summer of 1940) reveals, ‘We hoped the civilians didn’t get to know how badly-equipped we were.’²⁰⁵

²⁰⁰ D.W. Jackson, Town Clerk of Hastings, Letter to the Editor entitled, ‘Have Faith in our Town’, *Hastings and St Leonard’s Observer*, 29 June 1940.

²⁰¹ Editorial entitled, ‘Frustrate the Rumour Mongers’, *Hastings and St Leonard’s Observer*, 29 June 1940.

²⁰² Article entitled: ‘Black-out Offences’, *Hastings and St Leonard’s Observer*, 7 September 1940.

²⁰³ Letter to the Editor; ‘The Need for Underground Shelters’, *Hastings and St Leonard’s Observer*, 8 October 1940.

²⁰⁴ TNA, WO/166 949, war diary of 35 Brigade HQ, *Note to Other Ranks*, 22 October 1940.

²⁰⁵ IWM, Sound Archive, No. 19670/1, Phillip Daniel, Officer, 20th Light Anti-Aircraft Regiment.

Not that the author, Margaret Kennedy, was fooled when she de-camped with her children from Surrey to the Cornish coast that summer. She was clear in her diary that the ‘shabbily-dressed’ young men guarding the harbour looked little more than ‘armed civilians’ and that they gave the impression ‘of spirits that are neither high nor low’.²⁰⁶ Nevertheless, dances between civilians and locally billeted soldiers in Kent and Sussex were regular events. For example, the *Whitstable and Herne Bay Herald* reported on 14 September that the local Townswomen’s Guild had decided to organise a series of dances and concerts for soldiers. Such events were often instigated by the officers of individual units. For example, the major in command of 223 Anti-Tank Battery (part of 31 Independent Brigade based around the Military Canal near Hythe), organised a dance in a local village hall for his gunners which their war diary described as so successful that others had been planned.²⁰⁷ If this level of civilian/military fraternisation was typical and if this is then extrapolated across XII Corps, the logical conclusion would be that civilian fear, stress and frustration would have been well known to front-line soldiers. Whether their own morale was dampened because of long periods of exposure to worried local people is difficult to say. But it is very unlikely to have been raised.

This proximity to civilian sentiment would, not surprisingly, have been accentuated in the event of an actual invasion. This is an important point on two levels. Firstly, assuming that no civilian evacuation was undertaken, the inhabitants of towns such as Hastings and Lydd (and many others across Kent and Sussex as Chapter Three will explore), would have found themselves alongside troops in what were by September 1940 designated as ‘Fortified Towns’. Such towns (which had indeed been ‘fortified’ with concrete defences and anti-tank ditches etc), were to be held as long as possible in order to delay the progress of an invader inland. If civilians had been caught within these towns and if they then became casualties the impact upon the morale of the soldiers (some of whom would have known them personally), is hard to predict. But it might perhaps have dulled some of their determination to fight ‘to the last man and the last round’.

Based upon what happened in Flanders in May 1940, most civilians would have fled as an invader came ashore thus potentially clogging roads despite the Army’s determination to keep the main routes exclusively for military traffic. In support of this it is important to note that,

²⁰⁶ Margaret Kennedy, *Where Stands the Winged Sentry*, (Bath: Handheld Press, 2021) (first published in 1941), p.112 and p. 137.

²⁰⁷ TNA, WO 166/1686, war diary of 223rd Anti-Tank Battery, September 1940.

according to Alan Allport, during the Sudeten crisis in late 1938, ‘a stream of fleeing Londoners had clogged the road arteries’, as some 150,000 people had decamped to Wales and the West Country.²⁰⁸ Furthermore, on the day war did break out anxiety was running understandably high. Frederick Taylor, for instance, talks in his study of the ‘deep anxiety’ that prevailed and that how there was ‘a lot of calm masking fear’.²⁰⁹ And Constantine Fitzgibbon recalls in her memoir the ‘well-heeled exiles streaming in cars and taxis’ past her mother’s house in the Thames Valley in the hours immediately following the invasion of Poland.²¹⁰ Also, following the sounding of an air-raid siren shortly after war was declared on 3 September 1939, a Mass Observation observer noted the panic caused to the occupants of a café in Fulham, describing how ‘people in the street begin to run frantically...[and] dive for any doorway they can find.’²¹¹

If this was the (understandable) demeanour of some civilians back in September 1939 it is hard to conclude that anything other than mass-panic would have gripped the civilian population of Kent and Sussex had German landings been undertaken successfully a year later, something which would have reduced the fighting capability of the forces trying to repel an invader. Along with Virginia Woolf, another civilian who would not have fled was Hilda Cripps, who lived by the beach in Great Wavering in Essex. As a member of the village’s Invasion Committee, she had been warned that she would most likely be shot by the Germans if captured. Thus, she and her husband had agreed that when they saw enemy troops coming over Foulness beach they would kill their four-year-old daughter with aspirin dissolved in milk and then take their own lives. As she puts it in her testimony, ‘That’s the truth. That’s how real it was.’²¹²

In summary then, morale across XII Corps and the GHQ Reserve, was certainly not ‘high’ by September 1940 and could probably be fairly described as ‘mixed’ given, equipment deficiencies, indifferent amenities (for many), the strain of being at a high state of alert for weeks on end and the growing understanding of just what the British Expeditionary Force had had to contend with when fighting the Wehrmacht only four months previously. The fact that

²⁰⁸ Alan Allport, *Britain at Bay, The Epic Story of the Second World War: 1938-1941*, (London: Profile Books, 2020), p. 166.

²⁰⁹ Frederick Taylor, *1939, A People’s History, The War Nobody Wanted*, (London: Picador, 2019), p. 366.

²¹⁰ Constantine Fitzgibbon. *The Blitz*, (London: MacDonald, 1970), p. 26.

²¹¹ Mass Observation, *War Begins at Home*, eds. Tom Harrison and Charles Madge, (London: Chatto & Windus, 1940) pp. 45-6.

²¹² IWM, Sound Archive, No. 18337/2, Hilda Cripps, civilian and member of Great Wavering’s Invasion Committee.

these troops would have been fighting on home soil (with all that that would have implied) would doubtless have caused many to fight bravely and some to even fight ‘to the last round and the last man’ as most had been directed to do. But there is little evidence that that would have been a common occurrence. Indeed, there is also scant evidence that morale within XII Corps and the GHQ Reserve (or for that matter across the Home Forces generally), went up (or indeed went down) because of the requirement to defend British soil – however this might have stiffened the determination of some.

Also, although a detailed evaluation of the Local Defence Volunteers lies outside the scope of this study, it is interesting that down in Kent and Sussex the morale of some of their units was certainly not improved when they were ordered by the Army (in the event of invasion) to man particular ‘grid-lines or ‘stop-lines’. This was particularly the case when such defensive lines were situated some way from their local villages – thus potentially preventing them from protecting their families if they became caught up in the fighting.²¹³ It is noteworthy that no episode of the BBC’s situation comedy, *Dads Army*, ever tackled the issue of the Local Defence Volunteers’ evident determination to demarcate what they would and would not do in the event of an invasion in the XII Corps area, in the late summer of 1940.²¹⁴ Certainly, according to this example, few of them would have been willing to lay down their lives.

Furthermore, no matter how high morale may or may not have been amongst the troops of XII Corps, it was still largely made up of previously un-bloodied territorial infantry battalions whose equipment issues (as explored in Chapter Two) were compounded by their relative lack of training. In this regard, it is worth noting the experience of a Major P. Hampton who, in May 1940, commanded 228 Anti-Tank battery (57 Anti-Tank Regiment, 44 Division), which found itself in action south of Hazebrouck during the withdrawal to Dunkirk. At one point, as German tanks approached their position, two Sergeants refused to man their guns as they feared the battery was now in, ‘A last man last round situation’.²¹⁵ It was the first experience under fire for these territorial troops whose morale had doubtless been sapped by their experiences over

²¹³ TNA, WO 166/1214, Home Counties Area, 1939-1940 (One of XII Corps five sub-sectors), Note to XII Corps HQ, entitled, *Home Guard* (12 C/OPS/13/HCA), by Brigadier J. Davenport, Commanding Home Counties Area, Sevenoaks, dated 11 October 1940.

²¹⁴ The BBC situation comedy, *Dad’s Army*, ran to 80 episodes, broadcast between 1968 and 1977. A synopsis of each episode can be found at imbd.com [accessed 3 February 2022].

²¹⁵ Cambridge College Archives (CCA), HPTN 1, Diary of Major P.G. Hampton, entry for 22 May 1940.

the previous two weeks, but this example nevertheless demonstrates that most soldiers only fight to the death under exceptional circumstances.

Thus, it must be questioned whether many of the soldiers, defending beaches, or inland positions in Kent or Sussex in the face of a ruthless enemy helped by superb tactical air support, would have been prepared to give up their lives - despite the fact they were fighting for their families and their way of life. This point is endorsed by Colonel J. Horsfall-Coldwell who commanded the 1st Battalion, Royal Irish Fusiliers, in France in May 1940, where his (inexperienced) troops found themselves in action. In a lecture many years afterwards he noted that ‘...any raw troops are likely to bolt in their first experience of being fired at – particularly if surprised.’²¹⁶ This same battalion, doubtless having learnt a great deal from its time in France, found itself guarding Rye only a few months later in September 1940, another of the ‘fortress towns’ which was to be defended to the last man. It all adds to the conclusion that morale across (particularly) XII Corps, but also across the counter-attacking forces of the GHQ Reserve, might well have proved to be more fragile than has hitherto been assumed, in the event of an invader landing successfully, then causing significant military and civilian casualties as it advanced deep inland towards London.

²¹⁶ IWM, Document Archive, No. 15756, Colonel J. Horsfall-Coldwell, Private Papers, Lecture entitled; *Morale and Leadership*, dated 1982.

Leadership

The final part of this Chapter will look at the second element of the Moral Component of 'Fighting Power', Leadership. As noted in the Introduction to this study, this is defined in the Model of Fighting Power as being primarily about the presence of individual leaders who get people to achieve tasks whilst also being able to develop individuals and build effective teams. In addition, the Model underlines that such leaders need to be able to get people to fight in the chaos and confusion of battle. This definition of leadership is perhaps most relevant for junior and middle-ranking commanders in the field; it feels somewhat simplistic to apply it to more complex senior leadership roles. Be that as it may, the focus within this study is upon the leadership capability of the Army officers who made up XII Corps, and the GHQ Reserve in September 1940, given that that capability would doubtless have been sorely tested in the event of German landings.

Challenges in the assessment of leadership capability

The subject of leadership capability, even for only a defined part of the Army in September 1940, is huge and would warrant a doctoral study on its own. As stated in the Introduction, it is also a challenging subject to investigate so long after the event given the relative lack of availability of Army personnel records and the paucity of robust performance appraisals for 1940, along the lines of today's Officers Joint-Appraisal Reports (OJAR's). Merely assessing the leadership capability of even just the eighty or so senior officers at brigadier and above across XII and the GHQ Reserve would be a considerable challenge, and one that extended beyond the reach of the study. To then attempt to assess the capability of at least some eighty battalion commanders and a very considerable total number of company commanders, let alone platoon commanders and senior NCO's, would be a mammoth task indeed. Also, it needs to be underlined that even if this was undertaken, the officer training syllabus at Sandhurst in the 1930s was arguably not particularly effective at preparing young officer cadets for the realities of leadership in the field. One British Normandy veteran who attended Sandhurst in 1938 believed that it did little to prepare him for modern war, given that he never shot a machine gun, never saw a tank and that physical training involved little more than cycling in the Surrey Hills.²¹⁷

²¹⁷ Source: Professor Matthias Strohn, Visiting Professor of Military Studies, Humanities Research Institute, University of Buckingham, November 2021.

Even if records of annual assessments from 1940 did exist, it is by no means certain that individual commanders were being assessed back then against an agreed and uniform framework of leadership behavioural criteria or that an agreed benchmark existed of what ‘good leadership’ meant at different levels and in different branches of the Army. Assessing leadership strength is hard enough to do in a modern organisation today, let alone within the armed forces seventy years ago, at a time of national crisis. It is also interesting that, for all the analysis of almost every aspect of the British Army in 1940, very little has been written by historians of the overall leadership capability of senior, middle or junior commanders – presumably both because of the lack of robust data and because only the most senior military figures from the Second World War tend to be the subject of biographies. In summary then, using insights gained from Army personnel records is very unlikely to enable robust conclusions to be drawn about the overall level of leadership capability across XII Corps and the GHQ Reserve as the invasion crisis peaked. Thus, this study will focus principally upon senior officers, where there are at least in some cases insights on them as leaders from collective testimonies, memoirs, and private papers.

That said, although the Army’s approach to assessing and teaching leadership in 1940 may have been lacking in some areas, its thinking about leadership generally was not un-substantive. Thus, although a British company commander at the beginning of the Second World War might have been somewhat taken aback by the extent of today’s Army Leadership Doctrine (encompassing as it does not only descriptions of what leaders are and what they need to know, but also an Army Leadership Code of behaviours, an Army Leadership Model based upon the theory of action-centred leadership), much of it would have been at least recognisable.²¹⁸ Indeed, as Lanley Sharp’s study explores, it is safe to assume that most if not all of the principles of modern Army leadership were already (to a large extent) understood in 1940 even if they were not articulated at this level of sophistication.²¹⁹ For the Army’s deficiencies, first in the Crimean War and then during the Boer War, had prompted initiatives to improve the quality of leadership generally amongst senior leaders. By 1916, the Army had even established a Senior Officers School for Battalion Commanders. Given, as Sharp explains, that its participants were tasked with asking themselves ‘How am I going to make the most of [my

²¹⁸ *The Army Leadership Doctrine*, AC 72029, The Centre for Army Leadership, Royal Military Academy Sandhurst, September 2021.

²¹⁹ For a description of the history of development of the Army’s thinking around Leadership see: Lieutenant-Colonel, Langley Sharp, *The Habit of Excellence: Why British Army Leadership Works*, (London: Penguin, 2021), Chapter 1, pp. 9-30.

men] and how are they going to make the most of me?', it appears that even by the First World War the Army's thinking about the concept of leadership had already advanced some way into the modern age.²²⁰ This point is also underlined by Major-General Paul Nanson who emphasises that today's Army Leadership Doctrine should be seen as encompassing the lessons of some 'three hundred years' of thinking about leadership.²²¹ That said, the ability of the Army in the late 1930s to train young officers to be high-calibre leaders or to ensure that they were in roles that suited them, was relatively limited by modern standards - even before the challenges of large-scale conscription are factored in.

The key point here though is that, even before the war started, there was a growing perception amongst senior politicians that many of Britain's senior Army officers were of insufficient calibre for what might lie ahead. For example, Robert James in his study of Anthony Eden commented that both Eden and Churchill were agreed that 'the Army was encumbered with officers who were too old, too lazy or incapable of grasping the new technical and military realities'.²²² Quite where that perception originated from is unclear as James provides little evidence to support this statement, or his wider assertion that the upper ranks of the Army needed a considerable 'clear-out'.²²³ But it appears to have been heavily grounded upon two facts – namely that many senior officers were at the time approaching the normal age of retirement and, not surprisingly, that many of them had served in the First World War. Whereas almost any officer cadre will contain a degree of 'dead wood', especially in peacetime, the fact that by the late 1930s some seniors officers were getting on in years would not of itself point to their incompetence. Similarly, the fact that many had served in the trenches did not necessarily mean that they were somehow irreversibly imbibed with out-dated military thinking. Indeed, even if an element of this might have been true, especially amongst reserve officers who had left the Army in 1918 and had been brought back into uniform as the Second World War approached, this could arguably have been more than compensated for by the invaluable experience many had gained in terms of leading men in actual combat. Yet, within the historiography, there are many endorsements of the perception that several senior Army commanders in the late 1930s needed to be 'upgraded'. For example, in an article in 2004

²²⁰ Ibid., p. 22.

²²¹ Centre for Army Leadership, Leadership Speaker Series, presentation by Major-General Paul Nanson entitled, *British Army Leadership: Developing our Leaders Today and Tomorrow*, 15 May 2018, www.army.mod.uk [accessed 21/2/22].

²²² Robert Rhodes James, *Anthony Eden*, (London: Weidenfeld and Nicolson, 1986), p. 235.

²²³ Ibid.

exploring the reasons why some 40,000 British troops surrendered in Flanders in 1940, the comment is made that most officers were First World War veterans and that thus, ‘Innovative thinking was short on the ground.’²²⁴ Interestingly, this general accusation that many senior officers from the previous war were somehow ‘past their sell by date’ does not appear to have been levied at Brooke. His service as an artillery officer in the First World War is universally hailed in the historiography as a developmental experience with, for instance, his biographer David Fraser crediting him with developing the ‘creeping barrage’ to great effect on the Somme and at Vimy Ridge.²²⁵ No question mark is raised by Fraser as to whether Brooke’s innovative thinking capability, twenty years later, was still first-rate.

But the general perception that the senior officer cadre left much to be desired as the Second World War began, clearly extended into the War Office. A report in March 1940 by the then Chief of the Imperial General Staff, Lord Gort, reached the conclusion that some 55% of all territorial commanding officers were unfit for active command. This was a worrying conclusion indeed given that eight out of the thirteen divisions that were either then in France as part of the British Expeditionary Force or were about to embark for the continent, were territorial formations.²²⁶ But again, how valid this conclusion was is questionable, especially given that most of the so-called ‘first-line’ territorial divisions in France acquitted themselves well during the retreat to Dunkirk, despite significant equipment shortages and incomplete training (as will be explored in Chapter Two). The quality of senior commanders in the early part of the Second World War has also been explored by David French. Specifically he addresses the perception (held by some of the British public in the period of numerous defeats between Dunkirk and Alamein), that many divisional commanders although courageous nevertheless suffered from amateurism and an inflexibility of thinking – not unlike the cartoon character ‘Colonel Blimp’, created in 1934 by cartoonist David Low.²²⁷ By looking at the careers of 160 major-generals, French was able to show that far from being ‘superannuated’ most divisional commanders throughout the war were aged around forty-eight when they were first given command. Also, even at the start of the conflict the average age of those commanding a division, or who been appointed to such a role between September 1939 and

²²⁴ *The BEF and the issue of Surrender on the Western Front in 1940*, Connelly and Miller (article), *War in History*, 11/4, 2004, 424-441, (p. XX).

²²⁵ David Fraser, *Alanbrooke*, pp. 42-53.

²²⁶ TNA, WO 163/49, Memorandum from CIGS entitled, *Employment of Territorial Army Officers Reported Upon as Unfit to Command in War*, dated March 1940.

²²⁷ D. French, ‘Colonel Blimp and the British Army: British Divisional Commanders in War against Germany – 1939-1945’, *The English Historical Review*, Vol.111, No. 444 (Nov. 1996), pp. 1182-1201.

June 1940, was still only fifty-three years old – younger than many of their German counterparts.²²⁸ However, his exploration does not extend to attempting to reach conclusions about their overall leadership capability, doubtless because of the scarcity of reliable data.

Similarly, Edward Smalley, in his detailed examination of aspects of the British Expeditionary Force's performance in relation to training, communications, discipline, headquarters and staff, steered well clear of the subject of leadership capability, particularly in terms of senior commanders. In fact, one of the few tangible pieces of evidence that senior officers across the Home Forces in the summer of 1940 lacked capability, is that (as quoted many times in the historiography) Brooke removed some thirteen divisional commanders from their roles in the twelve months after he was appointed in late July 1940. This was a significant action, (though almost no mention is made of it in his diary entries from August 1940 to March 1941), given that the Home Forces in total contained some thirty-two infantry divisions and a further two armoured divisions in December 1940.²²⁹ But whether Brooke was correct in his assessments of divisional commanders in 1940 and 1941 is hard to prove or disprove, due once again to the shortage of data on leadership capability.²³⁰

In the summer of 1940, the leadership capability of middle-ranking and junior-ranking officers came more under scrutiny as the campaigns in Norway and France were assessed. One of the Bartholomew Report's many conclusions was that the British Expeditionary Force had suffered overall from a lack of aggression and offensive spirit - a charge it laid firmly at the door of middle and particularly junior commanders.²³¹ This conclusion was itself partly-informed by a report by (the then) Major-General Bernard Montgomery, which emphasised that the German army was 'first class' and that, in order to compete with it, officers at all levels would have to be, 'thoroughly versed in all aspects of soldiering', as well as being mentally robust.²³² The notion that a key issue in France had been a lack of ability on the part of field officers to create a sufficiently 'offensive mindset' amongst their troops, was also supported by Auchinleck's report on the Norwegian campaign. This spoke of his disappointment that

²²⁸ *Ibid.*, p. 1185.

²²⁹ TNA, WO 199/314, Reorganisation of the Home Forces, Winter 1940/1941, December 1940 to February 1941, Brooke Memo to War Office, dated 14 December 1940.

²³⁰ Arthur Bryant, *The Turn of the Tide, 1939 – 1943; A Study based on the Diaries and Autobiographical Notes of Field Marshal The Viscount Alanbrooke*, (London: Collins, 1957), p. 18.

²³¹ TNA, WO 106/1775, Final Report of the Bartholomew Committee on Lessons to be Learnt from the Operations in Flanders, June 1940-October 1940, conclusions, paragraph 8, bullet-point (b), July 1940.

²³² *Ibid.*, report entitled; *3rd Division, Important Lessons from the Operations of the B.E.F in France and Belgium – May 1940*, by Major-General B.L. Montgomery, dated 14 June 1940, p. 1.

British soldiers appeared to be ‘outmanoeuvred and outfought every time’, whilst German forces were so much better at, ‘pushing on’, a charge that could only imply (though he did not explicitly state it) that some British field commanders had performed poorly.²³³

These conclusions, doubtless informed those of Brooke himself who, at a meeting of his regional commanders shortly after he took over as Commander-in-Chief Home Forces, stated that it was the ‘middle piece officer’ (i.e. company commanders) who were, ‘the weak link’ and who needed to be the focus of subsequent training.²³⁴ Indeed when the same group convened for their meeting in December 1940, Brooke brought the topic up again this time questioning whether the Company Commander Schools were delivering company leadership courses of sufficient calibre.²³⁵ Brooke’s view that company commanders were central to the problem was also endorsed (in September 1940) by Brigadier Kenyon from the Directorate of Military Intelligence, in his paper on Army Morale. In his opinion, the Army could never make up lost ground until it had more, ‘experienced and efficient regimental field officers’.²³⁶ Furthermore, David French makes the point that junior commanders in the British Army in 1940 were expected to obey orders given to them to the letter which (he asserts) had the effect of stifling individual initiative to seize opportunities on the battlefield.²³⁷ According to him this was something that their German equivalents found easier to do given the greater latitude under which they operated.

It is thus hard to argue that the British Army in 1940 did not need to improve the overall quality of company and platoon commanders, but one cannot help question whether to some extent this very large cadre of young officers was made something of a scapegoat for the Army’s performance in Flanders and Norway, in the same way the Royal Air Force found itself criticised by the Army after the campaign - not least by the Bartholomew Report.²³⁸ It seems harsh that company commanders as a group were blamed for the Army’s wider lack of ability

²³³ TNA, WO 106/1962, Report entitled, *First Report from Norway, May-June 1940*, by Lieutenant-General Claude Auchinleck.

²³⁴ TNA, WO166/1, Home Forces GHQ, September 1939 to December 1940, minutes of meeting of Commander-in-Chief Home Forces’ Conference, dated 6 August 1940.

²³⁵ Ibid., Minutes of Commander-in-Chief Home Forces’s Conference, 10 December 1940.

²³⁶ IWM, Document Archive, No. 3868, Private Papers of Brigadier Kenyon, Report on Army Morale, 29 September 1940.

²³⁷ David French, ‘Doctrine and Organisation in the British Army, 1919 – 1932’, *The Historical Journal*, Vol. 44, No. 2 (June 2001), 497-515, (pp. 515).

²³⁸ TNA, CAB 106/22, Final Report of the Bartholomew Committee on Lessons to be Learnt from the Operations in Flanders, June 1940-October 1940.

to fight high-tempo combined arms engagements in May 1940 often in the face of significant equipment deficiencies, to name but one major constraint. This is especially true given that the issue of leadership capability amongst all ranks of British officers continued to be debated for much of the first half of the Second World War. It was, for instance, still high on the agenda of various Army Council meetings held in early 1942 and chaired by Brooke (now Chief of the Imperial General Staff).²³⁹ These then were the collective perceptions of leadership capability of officers at different levels within in the British Army in 1940, together with the subsequent conclusions drawn by historians since then. But, to what extent are these views mirrored by what the (somewhat limited) primary sources tell us about the quality of individual officers within XII Corps and the GHQ Reserve during the summer of 1940? This question will be tackled by using primary and secondary source material to examine the quality of the senior officers in the formations that would have been tasked with repelling an invasion, starting with Brooke himself, before then exploring the calibre of the middle and junior ranking officers - in so far as archive material allows.

Senior Officers

Starting with Brooke, upon whose shoulders so much would have rested in the event of an actual invasion, this evaluation will be limited to his capability as the Commander-in Chief of the Home Forces at the time of the peak of the invasion crisis in the summer of 1940 - a time when (in fairness) he was relatively new in post. His subsequent role as Chief of the Imperial General Staff, well after the immediate threat of invasion had receded, lies outside the scope of this study. It should first also be acknowledged that before he commanded the Home Forces, Brooke is recognised within the historiography as having made a vital contribution to the 'deliverance' at Dunkirk, in exceptionally difficult circumstances, as the Commander-in-Chief of II Corps. Thus, Hugh Sebag-Montefiori in his study of the campaign in France and Belgium praises both Lord Gort and Brooke for the way they, 'managed to push British troops into position behind the crumbling Belgian army'.²⁴⁰ Furthermore, in his study of Brooke, Arthur Bryant quotes Sir James Grieg (then Permanent Head of the War Office), who claimed that it was Brooke's 'skill and resolution' that saved not just his corps, 'but the whole B.E.F', during the retreat to Dunkirk.²⁴¹

²³⁹ TNA, WO 163/51, Minutes of the 12th to the 19th meetings of The Army Council. Paper on, *The Retention of Officers in Wartime*, 24 February 1942.

²⁴⁰ Hugh Sebag-Montefiori, *Dunkirk, Fight to the Last Man*, (London: Viking, 2006), p. 322.

²⁴¹ Arthur Bryant, *The Turn of the Tide, 1939 – 1943; A Study based on the diaries and Autobiographical Notes of Field Marshal The Viscount Alanbrooke*, (London: Collins, 1957), p. 16.

Upon taking command of the Home Forces at the end of July 1940, anyone reading Brooke's diaries can only be impressed with the energy and determination with which he embarked upon the task of energising and re-focusing the Home Forces, never mind the apparent ruthlessness he showed in upgrading many of its senior commanders. Even a cursory glance through his diary entries for August and September 1940 reveals a punishing daily schedule of inspections of formations of the Home Forces across Great Britain, coupled with numerous initiatives to improve the capability of the British Army in the UK and thus to enable it to take on the German Army in the event of an invasion. It is thus hard to concur with Robert Forczyk's conclusion that Brooke was, 'Largely a committee man...a brooding paper pusher and meeting attender' – an allegation that, in any event, Forczyk presents little evidence to substantiate.²⁴² In summary then there is little evidence that, by the summer of 1940, Brooke had not proved himself to be a highly-capable senior commander. But all senior leaders have flaws, so what were the potential weaknesses that Brooke also brought with him as a senior commander and what consequences might they have had for the nation in the event of an actual invasion?

Answering this is, as ever, challenging. Brooke remains (in the view of this study) something of an enigma, despite the extensive account of his daily schedule contained within his diaries. The private papers he left behind (in the Liddell Hart Centre for Military Archives) are limited and provide little insight into how he functioned as a leader. Amongst what might be termed his 'peer group' of senior commanders and politicians, there is also little to be found in terms of what might be called 'constructive criticism' relating to Brooke's roles, either in the two British Expeditionary Forces to France in 1940, or during his time in command of the Home Forces up until the end of 1941. Churchill, for instance, makes little mention at all of Brooke in *Their Finest Hour* and what he does say provides little additional insight into Brooke's personality or character traits as a leader. Indeed, some of the few (potential) insights on Brooke from this 'circle' come from Sir Basil Liddell Hart who, in May 1940, whilst noting his high level of ambition also questioned Brooke's wider thinking capability, describing him as, 'Very vigorous and constructive; an extremely capable technician, rather than a strategist of wide outlook.'²⁴³

²⁴² Forczyk, *Operation Sea Lion*, p. 231.

²⁴³ Liddell Hart Centre for Military Archives (LHCMA), 11/1940/34, Further note on senior officers, Private Papers of Sir Basil Liddell Hart, May 1940.

Also, a month earlier in April 1940, Liddell Hart wrote a note listing, ‘commanders with the quality of audacity’, a skill he clearly valued and (presumably) felt was lacking amongst some senior commanders at the time. Although Lieutenant-General Claude Auchinleck appears on this list together with Major-General Martell and Major-General Bernard Montgomery, Brooke is singularly absent.²⁴⁴ How fair either of these subjective judgements were, is debatable. Not only is ‘audacity’ somewhat hard to define let alone measure, but also this study has discovered little to suggest that others concurred with Liddell Hart’s view on Brooke’s strategic thinking capability in 1940. If Churchill thought there was a deficiency in this area, either in 1940 or during Brooke’s subsequent four years as Chief of the Imperial General Staff, it appears to have gone unrecorded. Nor did Arthur Bryant in his study of Brooke, *The Turn of the Tide*, comment specifically on this issue or for that matter provide much in the way of other insights into Brooke’s strengths and possible weaknesses as a senior commander. Having said all that and to present a more complete picture of him, it is important to stray briefly into Brooke’s tenure as Chief of the Imperial Staff and to mention what President Roosevelt’s key advisor, Harry Hopkins and the Chief of Staff of the United States Army, General George C. Marshall, both thought of Brooke’s intellect when they met him as part of the difficult and prolonged discussions about Anglo-American strategy, in London in April 1942. According to David Dimbleby’s illuminating study, Hopkins reported back to the President that, ‘Brooke made an unfavourable impression upon Marshall, who thinks that although he may be a good fighting man, he has not got Dill’s brains’.²⁴⁵ In fairness, Brooke in his diary was equally uncomplimentary about Marshall’s own strategic thinking capability – especially in relation to what Britain was proposing in terms of a ‘Mediterranean Strategy’ at the time. In any event, these discussions involved two countries looking at strategy from different perspectives and thus Marshall and Hopkins’ view of Brooke may well have been influenced by other ‘agendas’. However, their observations warrant including here.

Charles Fraser’s biography of Brooke in 1982 (which included insights from hitherto unresearched family papers), concludes that along with his many strengths Brooke could be ‘remote by temperament’, ‘intolerant’ and ‘formidable’ to deal with. He also added that, as a soldier, he had a tendency to be ‘cautious and inherently conservative’ and that he was ‘not

²⁴⁴ Ibid., 11/1940/25, April 1940.

²⁴⁵ Jonathan, Dimbleby, *Destiny in the Desert: The Road to El Alamein – The Battle That Turned the Tide*, (London: Profile Books, 2012), p.219.

infallible in his judgements of men'.²⁴⁶ Indeed, in relation to this latter point Fraser stated that Brooke was, 'ungenerous to and about Gort', in his accusations that he struggled to 'see the big picture' before the start of the Flanders campaign.²⁴⁷ Furthermore, in his chapter on Brooke within the book *Churchill's Generals*, Fraser made the point that having become Chief of the Imperial General Staff, 'Brooke commanded the admiration and often induced the fear of all', and that he had a quick temper.²⁴⁸ This 'picture' of some of the less favourable aspects of Brooke's leadership style was developed by Andrew Sangster in his 2021 study entitled, *Alan Brooke; Churchill's Right-Hand Critic*. This concluded that although Brooke had considerable skills when it came to intuition, intellect, decisiveness, strategic thinking (notwithstanding Liddell Hart) and the ability to grasp problems effectively, it was also the case that Brooke could be intimidating, abrasive, self-assured and at times, stubborn.²⁴⁹ Interestingly, aspects of both Sangster's and Fraser's conclusions on Brooke are endorsed by Philip Ziegler's official biography of Lord Mountbatten, published in 1986, in which he states that Brooke could be both 'acerbic and intolerant'.²⁵⁰ Although, not surprisingly, new sources on Brooke's personality are limited given the passage of time, the testimony of Major Alan Melville, Brooke's military assistant at the War Office between early 1942 and early 1944, underlines much of what was mentioned or implied by both Fraser and Sangster. Although Melville makes it clear that he admired 'Brookie' hugely and that he could be warm and kind-hearted, he nevertheless admits that, 'He often frightened people...he could be intimidating...he could be brusque and dominating and he never suffered fools'. He also adds that Brooke, 'had none of Dill's charm' and that 'he spoke at lightning speed which also intimidated some people'.²⁵¹

Thus, a picture emerges of a brilliant but at the same time complex very senior commander; someone whom many thought twice about challenging. This is a crucial point because, in the summer of 1940, Brooke took one of the 'cast iron decisions' that Nigel Hamilton (one of Montgomery's biographers) claimed that he excelled at.²⁵² This decision, which Brooke announced to his regional commanders at the Home Forces Conference on 6 August 1940,

²⁴⁶ David Fraser, *Alanbrooke*, (London: HarperCollins, 1982), pp. 507-508.

²⁴⁷ Ibid.

²⁴⁸ David Fraser, 'Field-Marshal Viscount Alanbrooke', in, *Churchill's Generals*, ed. by John Keegan (London: Weidenfeld & Nicolson, 1991, pp. 89-103, (p.100).

²⁴⁹ Andrew Sangster, *Alan Brooke: Churchill's Right-Hand Critic*, (Casemate: Oxford, 2021), Introduction, p. IX.

²⁵⁰ Ziegler, Philip, *Mountbatten: the Official Biography*, (Glasgow: Fontana, 1986), p. 287.

²⁵¹ IWM, Sound Archive, No. 12441/1, Alan Melville, Major, Military Assistant, War Office.

²⁵² Nigel Hamilton, *Monty, The Making of a General, 1887-1942*, (London: Book Club Associates, 1981), p. 329.

concerned how the Home Forces were to fight in the event of an invasion.²⁵³ In essence, the emphasis was now to be upon repelling an invasion primarily via offensive counter-attacks, with much less emphasis being placed upon linear and fixed defences in Kent and Surrey. Greater focus was also to be put on the rapid adoption of mobile so-called ‘combined -arms’ warfare – to a much greater extent than had been attempted before (not least by the British Expeditionary Force in France).

The implications of this decision for the Home Forces in the event of an invasion in the summer of 1940 and in particular the feasibility of them being able to adopt and then execute this ‘new’ way of fighting, will be explored in Chapter Three. The key point here though is that Brooke’s decision was a significant one representing, in Lofting’s eyes, nothing short of ‘A massive change in the Army’s strategy’.²⁵⁴ Furthermore, Brooke’s self-assurance and his tendency to be intolerant of the views of others once his mind was made up, would have made it hard for the plethora of regional, corps and divisional commanders underneath him to challenge this change of tactics (from those previously espoused by Lieutenant-General Edmund Ironside), as the invasion crisis grew. But as history has often shown, being both supremely confident that you are right whilst also being difficult to challenge can be a significant flaw for a senior leader in any field.

That said, Brooke’s self-assurance would have been an asset in his numerous, protracted and, at times, confrontational debates in the summer of 1940 with Air Marshal Sir Charles Portal, the General Officer Commanding Bomber Command from April 1940 until October 1940 – after which he was made Chief of the Air Staff. Analysis of the capability of the senior Royal Air Force officers within the Air Ministry and across No.1 and No. 2 Groups of Bomber Command who were in some way responsible for the delivery of tactical air support to the Home Forces, lies outside the scope of this study. However, Sir Charles Portal does need some comment given that in his role at Bomber Command, he ‘owned’ the resources that Brooke was relying upon to support the Home Forces in the event of an invasion, some of which, namely the Fairy Battle and Bristol Blenheim squadrons, Brooke argued should be moved temporarily or (even better) under Home Forces control. This notion was one that Portal resisted fiercely not least because he was an avowed supporter of strategic bombing and thus

²⁵³ TNA, WO166/1, Home Forces GHQ, September 1939 to December 1940, minutes of meeting of Commander-in-Chief Home Forces’ Conference, dated 6 August 1940.

²⁵⁴ Lofting, *We Shall Fight Them*, p. 101.

questioned the use of valuable (and vulnerable) aircraft in an often somewhat nebulous and often costly tactical support role.²⁵⁵ Portal was thus a key figure, arguably the key figure, that emerges from any examination into why the Royal Air Force did not see the provision of tactical air support as one of its key priorities by the time the invasion crisis peaked. The debates around air support ‘doctrine’ will be explored in Chapter Three, but suffice it to say for now that Portal, despite a very strong intellect was also somewhat ‘aloof’ by nature and was also uncompromising in his dedication to strategic bombing above all else.²⁵⁶ Portal’s somewhat inflexible presence at the helm of Bomber Command for much of 1940 thus represented a challenge for Brooke to say the least.

In terms of the senior commanders under Brooke and relating to XII Corps and the GHQ Reserve, the first individual who needs consideration is the Commander-in Chief of Eastern Command, Lieutenant-General Guy Williams. His remit (in the summer of 1940) extended from the Wash downwards around the south coast as far as Brighton. Based at Eastern Command’s Headquarters in Hounslow, Williams had served with distinction in the First World War and had spent much of the inter-war period in both India and Palestine. But he was also close to retirement and indeed subsequently left the Army just one year later. This study has found no evidence that Williams was anything other than capable of undertaking his role, but it should be noted that in the event of an invasion, his position would have been an important one, given that he had command over three different Army corps guarding the coastline; XII Corps in the south-east, plus XI Corps and II Corps in Suffolk, Norfolk and Cambridgeshire.²⁵⁷ Furthermore, a substantial proportion of the GHQ Reserve Forces in September 1940 would, most likely, have counter-attacked an invader on territory that was under his command. What Brooke thought of Williams is hard to determine, but between early August and the end of October 1940 his diary reveals that he had just two one-on-one meetings with him. The first (on 16 September) focused upon ‘winter reliefs’, while the second (on 4 October) was dominated by Brooke expressing further concern about Williams’s plans for ‘winter dispositions – to the extent that they had to be revisited.’²⁵⁸

²⁵⁵ Baughen, *The RAF in The Battle of France and The Battle of Britain*, p. 174.

²⁵⁶ For more information on the difficult relationship debate between General Sir Alan Brooke and Air Marshal Sir Charles Portal in the summer of 1940, see; David Hall, *Strategy for Victory: The Development of British Tactical Airpower, 1919 – 1943*, (Connecticut: Praeger Security International, 2008), and Portal’s biography by Richard Dennis entitled *Portal of Hungerford*, (London: Heinemann, 1977).

²⁵⁷ Lofting, *We Shall Fight Them*, Appendix 1, British Army Order of Battle, pp. 200-207.

²⁵⁸ *War Diaries, Alanbrooke*, entries for 16 September 1940 and 4 October 1940.

That said, the minutes of the December Commander-in-Chief's Conference appear to show that Williams was prepared to challenge Brooke in public – in this instance about the need for a further nine infantry battalions to defend Kent and Sussex during 1941.²⁵⁹ Overall then, it is not possible to prove that Lieutenant-General Guy Williams lacked the capability to lead Eastern Command in the summer of 1940 or that, in the event of an invasion, there was a strong likelihood he would have somehow struggled to execute Brooke's orders. It is possible, however, to argue that there were other senior commanders with more up to date experience of modern warfare who could have given such an important role. For instance, it remains interesting that after he returned from commanding the British Expeditionary Force in Norway, Lieutenant-General Claude Auchinleck was given Southern Command by the War Office rather than Eastern Command which, by then, was considered by many to be about to bear the brunt of a German invasion. If Liddell Hart was correct that Auchinleck really did possess the rare quality of 'audacity', he might have been the ideal person for the role – not withstanding his later trials in the western desert in 1942.

Turning now to the first of the three corps commanders within XII Corps and the GHQ Reserve, Lieutenant-General Sir Andrew 'Bulgy' Thorne's credentials to command XII Corps were strong. In addition to commanding 48 (South Midland) Division in France, during which time it had defended part of the western flank of the 'Dunkirk Corridor', he had also been the Military Attaché to Berlin in the mid 1930s and so had a better first-hand understanding of the Wehrmacht's combined arms capability than most. Brooke's predecessor, General Ironside, noted in his diary after inspecting coastal defences around Hythe in June 1940 that, 'Thorne is a good commander and full of the right kind of heart and energy'.²⁶⁰ That said, in April 1941, Thorne was controversially moved sideways by General Sir Alan Brooke to lead Scottish Command and replaced by Lieutenant-General Bernard Montgomery - who had lobbied him hard to lead the newly-formed South-East Command. According to Brian Horrocks, one of his divisional commanders, Montgomery was subsequently critical of the relaxed attitude that he discovered within XII Corps, typified by the fact that officers had been allowed to be joined by their wives in their billets and were also spending 'too much time in their offices to the detriment of active training'.

²⁵⁹ TNA, WO 199/3056, Commander-in-Chief Home Forces, Conference Minutes for December 1940.

²⁶⁰ *Time Unguarded; The Ironside Diaries, 1937-1940*, (New York: David McKay Company, 1962), entry for 28 June 1940.

Horrocks also claims that Montgomery felt the need to instigate an arduous new training regime across XII Corps and that three Brigadiers departed shortly after he took up his new command.²⁶¹ The degree to which all this shows Andrew Thorne in a poor light as a senior commander is open to debate. Perhaps the training regime in the new South-Eastern Command did need to be tightened somewhat, but it is equally as likely (given his widely recognised track-record of self-promotion), that Montgomery was primarily criticising the methods of his predecessor to promote his own capabilities.²⁶² Thorne's omission from Liddell Hart's list of senior commanders with 'audacity' is, though, hard to ignore (assuming Liddell Hart's assessment was informed and robust). Such a capability would have been vital for someone whose forces would have been (as we now know from hindsight), forced to confront the full force of the Wehrmacht's four invasion 'thrusts' along the south-east coast had Operation Sea Lion been put into effect.

Two other key roles in the event of an invasion would have been those of the two corps commanders within the GHQ Reserve (i.e., IV Corps and VII Corps). In terms of VII Corps (formed only on 13 July 1940), there was a clear issue it seems with both the capability and the temperament of its Canadian commander, Lieutenant-General Andrew McNaughton. Indeed, this manifested itself not just through the remainder of 1940 but on into 1941 and was still in evidence during the Dieppe raid in 1942. In particular, his relationship with Brooke in 1940 suffered partly because McNaughton took a somewhat 'purest' view of his government's instruction that 1 Canadian Division should only fight as a single entity. According to his biographer, David Fraser, Brooke found McNaughton, 'over-exact in his interpretation of his charter as to how Canadian forces were to be employed and under what conditions of independence'.²⁶³ This issue will be explored further in Chapter Three given that it impacted upon how this formation would counter-attack in the event of an invasion. Suffice it to say here that McNaughton's flaws as a senior commander appear to have included not only a degree of pedantry and inflexibility, but also a tendency to focus too much on the detail.

²⁶¹ Horrocks, *A Full Life*, pp. 98-99.

²⁶² Montgomery's well-documented tendency for self-promotion lies outside the parameters of this study. However, an account of his successful lobbying of Brooke to supplant Thorne as G.O.C. South-East Command in April 1941 can be found in; Donald Lindsay, *Forgotten General, A Life of Andrew Thorne* (Salisbury: Michael Russell, 1987).

²⁶³ David Fraser, *Alanbrooke*, p. 160.

Such traits are challenging to prove based on the evidence now available, but are partly demonstrated by looking at his activities during an VII Corps exercise in early September 1940. Thus, according to a revealing note in the war diary of VII Corp, entitled, *Activities of Lieutenant-General McNaughton*, he arrived at Milford Station on a visit to an Exercise Area on 3 September 1940 to find four Army tanks had halted 50 yards north of the level crossing at intervals of 25 yards. Only one tank had made even a partial attempt to conceal itself with some branches, leading to McNaughton ordering his car to stop so that he could lecture the offending crews about how they should have made use of the shade afforded by road-side buildings.²⁶⁴ Three days later he witnessed a different exercise by 1 Canadian Brigade near Crawley, focused upon the mopping up of enemy parachutists. According to the same note, he stopped to ask the driver and Bren gunner of a motor-cycle unit about how their Indian Motor Cycle was performing. This led to a Lieutenant Smallian being ordered by McNaughton to make a note of the fact that the magazine boxes should be placed with the box handles in future so that they could be more easily removed by the pillion rider. The same Lieutenant Smallian was then also tasked with getting samples of Norton motor-cycle tires (with a heavier tread than those currently used on the Indian motorcycle) so that McNaughton could assess whether they should be fitted to all Indian motorcycles.²⁶⁵ Finally, a further two days on, on a drive to XII Corps HQ at Tunbridge Wells, McNaughton spotted civilian labour clearing shrubs on a railway embankment near Groombridge. The notes from the day reveal that he felt this effort was wasted given that the danger of fire breaking out amongst the shrubs (and thus revealing the railway to enemy bombers) was not great.²⁶⁶ It is hard to criticise any of these actions. They took place during a national emergency during which an invasion was seen as imminent but, at the same time, they indicate an intensity and an unrelenting attention to detail that raises questions.

Indeed, one of McNaughton's own staff officers, Ernest Côté, was later to tell the Canadian military historian Jack Granatstein that, although admired by many of his men, McNaughton had an obsessive personality, for whom no detail was too small.²⁶⁷ This may have contributed to the nervous breakdown that Lofting claims McNaughton suffered in November 1940, though

²⁶⁴ WO 179/11, war diary of VII Corps HQ, General Staff, July-December 1940, Note entitled, *Activities of Lieutenant-General McNaughton*, 3 September 1940.

²⁶⁵ *Ibid.*, Note entitled, *Activities of Lieutenant-General McNaughton*, 7 September 1940.

²⁶⁶ *Ibid.*, Note entitled, *Activities of Lieutenant-General McNaughton*, 9 September 1940.

²⁶⁷ Jack Granatstein, *The Weight of Command Voices of Canada's Second World War Generals and Those who knew Them*, (Vancouver: University of British Columbia Press, 2016) p. 178.

Lofting's study provides no reference to verify this statement and no other secondary sources appear to mention it.²⁶⁸ Furthermore, the United States military attaché, Colonel Raymond E. Lee, wrote in his diary having met McNaughton at Lady Astor's estate at Cliveden in October 1940 that, 'I am inclined to think that he is a trifle overrated'.²⁶⁹ He also concluded that the Canadian general was, 'a very intense, academic type, who never laughs or smiles...' Brooke however, by mid-1941, had formed an even more negative opinion, namely that Naughton was in fact a liability. In a footnote (added later) to his diary entry for 15 June 1941, he stated that 'The more I saw of the Canadian Corps.... the more convinced I became that Andy McNaughton had not got the required qualities to make a success of commanding the Corps'. The same footnote though also makes it clear that removing McNaughton would be difficult for political reasons.²⁷⁰ Furthermore, by the time of the huge anti-invasion exercise in 1943, Exercise Spartan, Brooke was to confide to his diary that McNaughton was, 'quite incompetent to command an army'.²⁷¹ In summary, the fact is that Lieutenant-General McNaughton, whose VII Corps (by September 1940) contained both 1 Armoured Division and 1 Army Tank Brigade, would thus have been in overall command of a significant proportion of the nation's limited supply of 'modern' tanks (defined as either cruiser tanks or Mk II (Matilda) or Mk I (Valentine) infantry tanks). Given that these would have been in the vanguard of the mobile counter-attacks that would have been launched against an invader advancing inland, having McNaughton as overall VII Corps commander was far from ideal.

The other corps commander within the GHQ Reserve was, Lieutenant-General Sir Francis Nosworthy, the General Officer Commanding IV Corps. Like Lieutenant-General Sir Guy Williams at Eastern Command, he had served in World War I and seen service in India before taking over IV Corps in 1940, aged fifty-two – a post he held for just one year. The fact that he was then made Commander-in-Chief of West Africa, before retiring in 1945 does not point to a high-trajectory career path. Ironside's diary from mid-July states that, having just visited Lieutenant-General Nosworthy at his headquarters, he found IV Corps to be in good order and described Nosworthy as, 'an efficient leader, full of enthusiasm and confidence'.²⁷² As with Lieutenant-General Guy Williams, Brooke appears to have spent little time with Nosworthy

²⁶⁸ Lofting, *We Shall Fight Them*, p. 172.

²⁶⁹ Jack Granatstein, *The Generals: The Canadian Army's Senior Commanders in the Second World War*, (Toronto: Stoddart Publishing, 1993), p. 54.

²⁷⁰ *War Diaries, Alanbrooke*, entry for 15 June 1941 and subsequent footnote.

²⁷¹ *War Diaries, Alanbrooke*, entry for 7 March 1943.

²⁷² *Time Unguarded, The Ironside Diaries*, entry for 14 July 1940.

during the invasion crisis, at least according to his diary entries. Indeed, although the two would have met at Brooke's Home Force's Conferences, not to mention during visits Brooke made to any of the three divisions that made up IV Corps, it is interesting that it was not until 18 September that, according to Brooke's diary, they met to 'talk about methods of counter-attack with IV Corps'.²⁷³ The output of that meeting is, sadly, not in the war diary of IV Corps Headquarters. However, just over two years later and having relieved Nosworthy of his command, Brooke's commented in his diary that Nosworthy had 'a false idea of his value' and that 'he had reached his ceiling'.²⁷⁴ In summary then, as with Lieutenant-General Sir Guy Williams at Eastern Command, one cannot help wondering whether there might have been a better option available to lead this important Corps, which accounted for around half of the counter-attacking forces that were available for immediate deployment to the coast. In truth it was one of the most vital roles in the Home Forces.

Within the three Corps under investigation, once again the lack of evidence makes it challenging to evaluate the quality of the divisional commanders and brigade commanders. However, there were three senior commanders who held significant roles in these formations in the summer of 1940 and who then went on to hold even more senior positions later in the war, from which they were subsequently either removed or which led to them being embroiled in controversy thereafter. On this basis they may have been questionable appointments in 1940. In addition, there were two divisional commanders who remained in post after Brooke's appointment in late July 1940, even though there were credible opinions that they should have been moved on.

Starting with these two divisional commanders, Brooke took the decision on 23 August 1940 to install Major-General Willoughby Norrie (aged forty-seven) as the General Officer Commanding, 1 Armoured Division. Norrie had previously commanded 1 Armoured Brigade (a so-called 'light' brigade within 2 Armoured Division) and had therefore not served with the British Expeditionary Force in France. Brooke's diary makes no mention of why he thought Norrie was uniquely qualified for such a key role, indeed it only reveals that when they met on 23 August they focused only upon '...what I wanted done regarding the handling of 1 Armoured Division'.²⁷⁵ The two men met again on 6 September, this time for a whole day, by which time

²⁷³ *War Diaries, Alanbrooke*, entry for 18 September 1940.

²⁷⁴ *War Diaries, Alanbrooke*, entry for 31 December 1942.

²⁷⁵ *War Diaries, Alanbrooke*, entry for 23 August 1940.

Norrie's remit over the total number of so-called 'modern' tanks available had been expanded so that, in addition to the 50 Cruiser tanks of 5 Royal Tank Regiment (1 Armoured Division), he now also had 1 Army Tank Brigade with its (by then) 106 precious Mk II (Matilda) infantry tanks, mainly based south of the so-called 'Redhill gap' in the Surrey Hills. However, once again, no record of what was discussed appears in Brooke's diary or in the war diary of 1 Armoured Division. Thus, the relatively inexperienced (but doubtless capable and energetic) Norrie would have commanded around 45% of the 360 or so 'modern' tanks in Great Britain in the event of an invasion in the middle of September 1940. Looking at it another way, he would have commanded 100% of the 'modern' tanks that could have (reasonably swiftly) played a part in counter-attacking a German beachhead near the Kent and Sussex coast. Given all this, and the fact that he reported to Lieutenant-General Andrew McNaughton as his Corps commander, Norrie's appointment by Brooke, even without the benefit of hindsight, appears risky.

David French also makes the point that after being given 1 Armoured Division to command, Norrie reversed his predecessor's plans for it to be equipped with a whole motor infantry brigade. Doubtless Norrie had good reasons for doing this, but they are not apparent to French who concludes that because of this decision the Army 'forfeited another opportunity to transform their armoured divisions into more balanced, all-arms formations'.²⁷⁶ This latter point is interesting as Norrie was one of seven potential future commanders that, according to David French, Brooke identified during his tenure as commander of the Mobile Division between 1937 and 1938.²⁷⁷ Norrie may well have had considerable potential as a senior commander in Brooke's eyes but he was not, sadly, to fulfil it. Having gone on to command XXX Corps (containing 1 Armoured Division) in the Middle East, as a Lieutenant-General and having fought at Gazala and at the First Battle of El Alamein in June and July 1940, Norrie no longer commanded XXX Corps. Opinions appear to differ as to why this was. Forczyk says that that he was removed by Lieutenant-General Claude Auckinleck (commanding 8 Army) after having 'performed poorly' at Gazala in June.²⁷⁸ But Forczyk gives no reference to back up this statement and if Norrie's performance had been that poor at Gazala it is surely likely that Auckinleck would have removed him from post then rather than allow him to continue to

²⁷⁶ French, *Raising Churchill's Army*, p. 192

²⁷⁷ David French, 'Colonel Blimp and the British Army: British Divisional Commanders in War against Germany – 1939-1945', *The English Historical Review*, Nov., Vol. 111, No.444 (1996), 1182-1201 (p. 1194).

²⁷⁸ Forczyk, *Operation Sea Lion*, p. 233.

lead XXX Corps at the First Battle of El Alamein just a few weeks later? Furthermore, Forczyk's view is contradicted by that of Christopher Dorman-O'Gowan who states that, in fact, Norrie asked for medical leave after the First Battle of El Alamein on the grounds of exhaustion and that his reputation as a leader of armoured formations was untarnished by the various desert battles of June and July 1940.²⁷⁹ Either way, his appointment in North Africa was to be Norrie's last operational command of armoured forces and in 1944, at the age of only 51, he was sent out to be Governor of South Australia. He thus does not appear to have proved to be the inspired choice to lead 1 Armoured Division in September 1940 that Brooke had hoped he would be – although, in fairness, Norrie must have performed reasonably well during the huge anti-invasion exercises that Brooke organised in 1941, for his subsequent career to have developed as it did. Sadly, War Office files relating to those exercises do not (sadly) contain evaluations of individual commanders.

All this is important because the man Brooke removed from commanding 1 Armoured Division, Major-General Roger Evans, felt aggrieved enough about the decision to demand to see Brooke in person – a meeting that duly took place on 19 August and which Brooke described as 'unpleasant'.²⁸⁰ Evans had commanded 1 Armoured Division since 1938 and had only recently returned with it from its ill-fated expedition to France as part of the Second British Expeditionary Force. Brooke's decision to replace Evans may have been related to a report on the operations of the British Expeditionary Force in France after Dunkirk by Lieutenant-General J. Marshall-Cornwall. This was critical of Evans's decision to pull back some of his armoured forces after suffering heavy losses during a French-led counter-attack along the Seine near Rouen – a decision that Marshall-Cornwall believed at the time might lead to the French blaming the British if they subsequently lost their line on the Seine.²⁸¹ Given that Brooke commanded the Second British Expeditionary Force he would have been well-placed to judge Evans's capability for himself at first hand, but it is not clear that Evans had much choice during the Rouen engagement on 7 to 9 June given that, as the report admits, his remaining light tanks and cruiser tanks were limited in number and in poor condition. It should also be remembered that just ten days earlier, on 27 May, Evans had commanded 1 Armoured Division during its hugely costly counter-attack (under French command) against German bridgeheads on the

²⁷⁹ Statement made by Christopher Dorman-O'Gowan during a talk at The National Army Museum entitled 'The First Battle of El Alamein', 14 October 2022.

²⁸⁰ *War Diaries, Alanbrooke*, entry for 19 August 1940.

²⁸¹ TNA, WO 216/116, Report by Lieutenant-General J. Marshall-Cornwall, *Operations of the B.E.F. from 1 to 18 June 1940*.

Somme, during which 65 of its tanks were destroyed and a further 55 were put out of action due to wear and tear.²⁸² On the face of it then, Brooke's decision on 19 August to replace Evans, just weeks before what was (with hindsight) the peak of the invasion crisis, might have proved ill-advised had landings occurred. Furthermore, Brigadier Drake-Brockman, commanding 21 Army Tank Brigade (within the GHQ Reserve) was also untried in battle.²⁸³ His force of some 86 of the latest infantry tanks was based near Salisbury Plain and would most likely have been pivotal in the event of an invasion.²⁸⁴

Of perhaps equal importance to the issue of who was commanding the majority of the GHQ Reserve's tanks, was the question of who was commanding the two divisions under Lieutenant-General Andrew Thorne in XII Corps. For without doubt, 1 (London) Division in Kent and 45 (West Country) Division in Sussex would have played the all-important role of either repelling a landing before it could become established or, perhaps more-likely, delaying the advance of enemy forces inland with the help of the modest 'local' counter-attacking reserves that Brooke sent into Kent in September, while the rest of the GHQ Reserve's mobile forces rushed to the scene from their bases around the 'Dorking Gap' in the Surrey Hills.²⁸⁵ Given that it may well have taken the latter some time to arrive in the wild of Kent or Sussex (as will be explored in Chapter Three), the quality of the leadership of these two territorial divisions would have been crucial. In terms of Major-General Schreiber, commanding 45 (West County) Division, the situation seems straightforward. A note from Lieutenant-General Ironside to Lieutenant-General Thorne as he took up command of XII Corps, makes it clear that he regarded Schreiber highly.²⁸⁶ Furthermore, Lofting's study states that Major-General Schreiber had commanded II Corps' artillery within the British Expeditionary Force and was later to command IV Corps and then 1st Army in Tunisia in 1943.²⁸⁷ However, the same note from Lieutenant-General Ironside warns that Major-General Claude Liardet, commanding 1 (London) Division 'Has been a long time at his job and I have no idea if he can stand the strain of war. I doubt it very

²⁸² Hugh Sebag-Montefiori, *Dunkirk, Fight to the last Man*, p. 273.

²⁸³ Lofting, *We Shall Fight Them*, p. 116.

²⁸⁴ See Appendix III: Number of 'Modern' Tanks' by mid-September 1940 and Appendix IV: Location of 'Modern' Tanks' by mid-September 1940

²⁸⁵ These reserves were the so-called 'Milforce' comprising 2 New Zealand Division together with tanks from 8 Royal Tank Regiment, plus 5 Royal Tank Regiment - as will be examined in Chapter Three.

²⁸⁶ NAM, 3367-3494, Private Papers of General Sir Andrew Thorne, note from General Ironside, dated 8 June 1940.

²⁸⁷ Lofting, *We Shall Fight Them*, p. 115.

much'.²⁸⁸ Furthermore, according to John Colville (Churchill's assistant private secretary in 1940), Liardet's promotion to command 1 (London) Division in 1937 was the idea of (the then) Secretary of State for War, Leslie Hore-Belisha, and that the Chief of the Imperial General Staff at the time, Sir Cyril Deverell had tried to stop it.²⁸⁹ It is thus surprising that Liardet, remained in post throughout the invasion crisis and, unlike many others, survived the scrutiny of Brooke. However, as soon as Lieutenant-General Sir Andrew Thorne departed to Scottish Command in early 1941, Liardet was moved to the lesser role of Inspector General of Aerodrome Defence. It all begs the question of whether Liardet should have been replaced much earlier, given that repelling an invasion would most likely have been an extremely 'high-tempo' operation. Also, there were in the early summer of 1940 several capable divisional commanders who had returned from France having experienced the Wehrmacht at first hand and who could have been put into this role.

Finally, in terms of Brigade commanders there were two who, with hindsight, may have been question marks based on their subsequent career paths. The first is Brigadier Oliver Leese, who commanded 29 Independent Infantry Brigade which, in the summer of 1940, formed part of 45 (West Country) Division's limited force of reserves. Based at Crawley, it was tasked, amongst other things, with counter-attacking towards New Haven in the event of an invasion, given the vital importance of preventing German forces from capturing a port. Leese went on to command the 8th Army in Italy until relieved of his command, in December 1944, having failed to break through the so-called 'Gothic Line'. The military historian Lord Carver, stated in his history of the Italian campaign that Leese's successor, Lieutenant-General Sir Richard McCreery, 'produced more imaginative plans' than his predecessor had managed to do.²⁹⁰ It is, of course, debatable whether criticism of Leese in relation to the hugely complex and difficult Italian campaign has any relevance to an assessment of his capability as a Brigadier four years previously in the UK. It should also be noted that he was also one of the small number of senior commanders that Liddell Hart identified as having 'audacity' in April 1940 assuming, as ever, that Liddell Hart's judgement can be trusted.²⁹¹ Furthermore, Lofting claims that Leese was later to be described by Montgomery as 'the best soldier in North Africa', but

²⁸⁸ NAM, 3367-3494, Private Papers of General Sir Andrew Thorne, note from General Ironside, dated 8 June 1940.

²⁸⁹ John Colville, *Man of Valour, The Life of Field Marshall The Viscount Gort*, (London: Collins, 1972), p.72.

²⁹⁰ Field Marshal Lord Carver, *The Imperial War Museum Book of the War in Italy, 1943-1945: the Campaign that Tipped the Balance in Europe*, (London: Sidgwick & Jackson, 2001), p. 317.

²⁹¹ LCHMA, 11/1940/25, Private Papers of Sir Basil Liddell Hart, note entitled, *Commanders with the Quality of Audacity*, dated 14 April 1940.

he provides no reference for this remark. That said, what happened in Italy does, at least, raise a question mark about Leese's likely capability back in the summer of 1940.

The same is true of (then) Brigadier Frederick Browning who, in September 1940, having not been to France, commanded 128 Brigade within 43 (Wessex) Division, one of the key infantry divisions within the GHQ Reserve - not least because this division was, according to Richard Mead, 'one of the best equipped in the UK in June 1940'.²⁹² The fact that, in 1944, as General Officer Commanding 1 Airborne Corps, he became embroiled in the controversy that followed Operation Market Garden, may not have any bearing on his suitability to command a mobile, counter-attacking infantry brigade at the peak of the invasion crisis four years previously, but it does raise a question mark about him. Anthony Beevor in his study of the Battle of Arnhem, describes Browning as being brave but also as vane, highly strung, over-ambitious and as a 'patronizing and manipulative empire-builder'.²⁹³ Of course, Browning and Leese were just two Brigadiers in 1940 out of many in XII Corps and the GHQ Reserve, but both had crucial front-line, counter-attacking roles that, at least in theory, should have been filled by the best possible commanders available. Perhaps this was the criteria upon which they were selected, but perhaps the process was not as rigorous as it might have been given the national emergency. Either way, mediocre performance on their part in response to an actual invasion could have had a significant impact.

Middle-ranking and junior-ranking officers

As noted earlier, the availability of credible evidence from any primary sources becomes thin below the level of senior Army officers, in terms of recorded insights from contemporaries. However, to return to Brooke's assertion noted earlier, that there was a particular issue with what might be termed, 'offensive leadership capability' amongst company commanders, it is interesting to examine whether there is any evidence from primary sources of this issue emerging within XII and the GHQ Reserve in the summer of 1940. It is also important to note that when Brooke brought up the subject of the training of company commanders at the Commander-in-Chief Home Forces Conference in December 1940 he did so having, by his own admission, visited just one Company Commanders School. And his question mark after that visit (according to the minutes) was whether enough was being done by these schools 'to

²⁹² Richard Mead, *General 'Boy': The Life and Times of Lieutenant General Sir Frederick Browning*, (Barnsley: Pen & Sword Military, 2010), p. 62.

²⁹³ Anthony Beevor, *Arnhem: The Battle for the Bridges, 1944*, (London: Viking, 2018), pp. 24-25.

teach company commanders how to train their companies’, not that the schools were necessarily failing to turn out officers who were sufficiently offensive-minded.²⁹⁴

Furthermore, this general allegation that battalion or company commanders in France had not ‘pushed on’ enough is not evident from the sample of thirty-seven private soldiers and NCO’s, all of who served in formations in XII Corps of the GHQ Reserve in September 1940 - and who subsequently gave testimony to the Imperial War Museum sound archive in the early 1980s. These men were spread across infantry, artillery, and armoured formations, plus some had also seen service with these same units in France.²⁹⁵ What is noteworthy is that in many of these interviews, the interviewer asks what the individual thought of his officers at the time. Often this question is answered on a more ‘holistic’ basis across the whole of the war but, in a few instances, people focus their reply upon 1940 alone. Many of these can remember the name of their company commander or battalion commander and talk in a manner that suggests a degree of respect for them. For example, Victor Burton, an NCO in the 1st Battalion, East Lancashire Regiment (ultimately part of the GHQ Reserve) states that, during the campaign in France, ‘Our C.O. was good’.²⁹⁶ Although he was referring here to his battalion commander, given that his unit was then engaged in vicious fighting to defend the Dunkirk perimeter, if he considered his company commander to have been poor or over cautious he would probably have mentioned it. Also, although Victor Burton does not state which company he was in, it transpires from the 1st Battalion’s war diary that B Company was reduced to just 30 men during the defence of the Dunkirk perimeter on 1 June, something that implies no lack of spirit on the part of the battalion commander.²⁹⁷ And it is also worth mentioning here that the officer from the 1st Battalion who was later to be awarded a Victoria Cross for his efforts with a Bren gun during this engagement on the Canal de Bergues, was yet another company commander, Acting Captain Marcus Ervine-Andrews.

Another formation in XII Corps in the summer of 1940 that had seen some of its junior leaders excel in France was the 1st Battalion, Royal Irish Fusiliers. As part of the British Expeditionary Force’s rear-guard it had to fight costly actions firstly at Audenard and then La

²⁹⁴ TNA, WO 199/1648, C-in-C Home Forces Conference: points raised by Corps and Divisional Commanders, November – December 1940, Minutes of Conference held on 10 December 1940, Training Exercises, p. 2.

²⁹⁵ A full list of the private soldiers and non-commissioned officers from XII Corps and the GHQ Reserve, whose testimonies, diaries, and memoirs have been examined as part of this study is included in the Bibliography.

²⁹⁶ IWM, Sound Archive, No. 18204/1, Victor Burton, NCO, 1st Battalion, East Lancashire Regiment, 42(East Lancashire) Division.

²⁹⁷ TNA, WO 167/782, war diary of 1st Battalion, East Lancashire Regiment, 42 (East Lancashire) Division, May and June 1940.

Bassé, prior to escaping to Dunkirk. Back in England, five of its company and platoon commanders were subsequently awarded the Military Cross.²⁹⁸ And one final example of a XII Corps company commander who had excelled in May 1940, was Captain N. Moore of the 2/5th Battalion, Queen's Royal Regiment of West Surrey – a unit that went on to be stationed in north Kent during the invasion crisis. This third-line territorial digging battalion (mentioned earlier) was only in France to carry out construction work and according to its commander, Lieutenant-Colonel Young, had virtually no transport, only fourteen Bren guns and no anti-tank guns when it was surprised and overrun by a large panzer force in the Somme Valley near Abbeville on 20 May 1940. Captain Moore was subsequently recommended for a Military Cross by his commanding officer for helping to get 120 men out of the battalion's strength of 400 men (many of who could not swim) to safety across the Somme that night, in chaotic conditions and under heavy fire.²⁹⁹ These individual examples taken together do not prove that Brooke was fundamentally wrong in his view that company commanders generally needed improvement but they do show that this was not universally the case and that some did all that could have been expected of them and more during the campaign, even in the lowest-quality infantry units.

A very different example of the quality of some company commanders comes to light thanks to Stanley Warburton, a private in the Headquarters Company of the 4th Battalion, Dorsetshire Regiment (again part of the GHQ Reserve), who had previously worked on the Astor's family estate in Dorset. He recalls sitting in a slit trench in Hatfield Forest in September 1940 watching the sky turn red from the bombing of London and a few months earlier seeing nurses at Berkhamsted Hospital on the point of desertion in the face of the sheer numbers of wounded men from Dunkirk they had to treat. But during his testimony he also commends his company commander, Captain Honour, for treating the company well throughout the invasion crisis.³⁰⁰ Captain Honour's 'offensive spirit' is thus not commented upon but he is complimented for something that would have mattered much to the men in his company and arguably would have done a great deal to boost their morale - no small thing given that, in the event of landings, 43

²⁹⁸ *1st Battalion Royal Irish Fusiliers and the Fighting Retreat to Dunkirk* : Military Crosses awarded to; Acting Captain Peter Murphy, Temporary Captain John Coldwell-Horsfall, Second Lieutenant George Martin, Second Lieutenant Charles O'Farrell and Second Lieutenant Maurice Johnson, www.wartimeni.com (accessed 20 January 2022).

²⁹⁹ Surrey History Centre, QRWS/10/1/: Battalion Records and Related Ephemera, 1940 to 1988, Letter from Lieutenant-Colonel, Young to his brother, 2/5th Battalion, Queen's Royal West Surrey Regiment, 35 Brigade, May 1940. [35 Brigade was subsequently made part of 1 (London) Division guarding Kent.]

³⁰⁰ IWM, Sound Archive, No. 22340/1, Stanley Warburton, Private, 4th Battalion, Dorsetshire Regiment, 130 Brigade, 43 (Wessex) Division.

(Wessex) Division would have had the task of counter-attacking the German Army without any previous experience of combat.

Indeed, within the testimonies examined by this study from troops in the front line of the Home Forces in the summer of 1940, only one is critical of his unit's field officers and this example comes from outside XII Corps and the GHQ Reserve. George Self, an NCO in C Company of the 8th Battalion Durham Light Infantry in France (a unit that was to end up guarding Lyme Regis in Dorset as part of V Corps), describes the intense combat both at Arras and then during the defence of the Dunkirk perimeter in May 1940, during which his battalion endured substantial casualties. He concludes that some of the officers in his (first-line territorial) battalion provided them with the leadership they expected, but that some 'could have tried a bit more than they did'. It was also apparent to him that none of them had trained as commanders under live ammunition.³⁰¹

In summary then, this small number of examples, while not statistically exhaustive, does lend support to the notion that if the British army in 1940 did lack 'offensive spirit', it may be unsound to hold company commanders responsible for much of this failing. Similarly, company commanders in France can hardly be blamed for exercising the option to surrender, during the campaign. For, according to Mark Connelly and Walter Miller's article, many middle-ranking officers ordered their men to lay down their arms simply because they could see that 'further resistance would only increase casualties to little effect', not because of weakness or the lack of will-power to fight on.³⁰² Thus, Captain A. Munby of the Queen Victoria Rifles ordered his men to surrender at Calais because he had concluded that, 'to make a last stand would only have resulted in the sacrifice of some forty lives'.³⁰³ The same article also makes the point that the fact that few officers were prepared to fight to the death in France once resistance had become futile, meant that their actions 'sometimes ran contrary to the expectations of high command'.³⁰⁴ This comment is particularly poignant in the light of Brooke's subsequent negative observations in relation to company commanders, that have already been noted. It is also interesting given that it links to Army Training Memorandum

³⁰¹ IWM, Sound Archive, No. 10413/8, George Self, NCO, 8th Battalion, Durham Light Infantry, 151 Brigade, 50 (Northumbrian) Division.

³⁰² Mark Connelly and Walter Miller, 'The BEF and the Issue of Surrender on the Western Front in 1940', *War in History*, 11/4, 2004, 424-441, (p. 436).

³⁰³ IWM, Document Archive, No. 1494, Private Papers of Dr. A.N. Munby; diary.

³⁰⁴ M. Connelly and W. Miller, 'The BEF and the Issue of Surrender on the Western Front in 1940', *War in History*, 11/4, 2004, 424-441, (p. 441).

(No.34), dated July 1940, which contains an appendix listing some eight learning points from the recent campaign in France. The first is entitled 'Fighting Spirit' and contains a short case study describing how two sections of troops came under fire while defending a bridge. The leaning point is that the men should not have fallen back so quickly and that, 'it is the duty of the individual to remain at his post until killed or captured.' Even given the national emergency at the time, this seems a high expectation.

The true capability of company commanders in France (and thus of those same individuals in September 1940) might also be revealed through the lens of military decorations awarded after the campaign. It would be complex to determine, but nevertheless interesting to know, whether the medals and mentions in dispatches earned by infantry company commanders in France were (proportionally) less than those earned by their equivalents in Normandy – after some four years of effort on the part of Brooke to address the leadership deficiencies he had identified at the company commander level. Although this question lies outside the boundaries of this study, it should be noted that during D-Day just one Victoria Cross was won by the Army and that went to Company Sergeant Major Hollis of the Green Howards for his action on Gold Beach.³⁰⁵

The same analysis would also be helpful when trying to assess the leadership capability of platoon commanders and non-commissioned officers in the summer of 1940. Once again however, data from the primary sources examined by this study is sparse. This is a great shame as it would, for instance, be interesting to explore David French's assertion (mentioned earlier) that junior commanders in 1940 lacked much initiative under battlefield conditions, primarily because they had been trained to obey orders to the letter and then await further instructions rather than use their own initiative to move the situation forward decisively - as their German counterparts tended to do. This is something of a sweeping statement and doubtless David French would be the first to concede that there were, most likely, many exceptions to this amongst the British junior commanders that fought in France and Belgium in May 1940. However, it should be noted that none of the large number of personal testimonies analysed by this study from the Imperial War Museum's sound archive reveal any instance of where platoon commanders are accused of not using their initiative during the difficult campaign of May

³⁰⁵ www.iwm.org.uk [accessed 13/3/22], summary of the Victoria Cross citation, for Company Sergeant Major Stan Hollis, D Company, 6th Battalion, Green Howards, for actions undertaken on King Sector, Gold Beach, during 6 June 1944.

1940. Nor does French in his comprehensive study, *Raising Churchill's Army*, provide tangible examples of this lack of initiative and decisiveness amongst junior officers or senior NCO's. This is an important point because Army Training Memorandum (No.31), dated April 1940, has an opening section entitled 'The Officer and his Job' - which is specifically aimed at junior officers. In addition to articulating what is expected of such an officer in battle, it then lists thirty-six questions that a junior officer should be asking himself constantly about his conduct in relation to the men underneath him. The list is impressive and many of the questions relate to the officer's personal initiative, proactiveness and ability to generate new ideas.³⁰⁶ Thus, if the Army's junior officers in France were not thinking for themselves sufficiently under fire, the culture above them might have been partly to blame.

That said, the private papers of Lieutenant-Colonel N. Field, who served as a Second-Lieutenant in the 2nd Battalion, Royal Fusiliers in France and who went on to be an intelligence officer within XII Corps during the invasion crisis, contain a so-called 'Winter Essay', written in the winter of 1937-1938 (presumably at Staff College). This concluded that young officers needed more practice at 'handling troops'.³⁰⁷ Whereas this was most likely true in some territorial formations it was (one assumes) less the case within the five regular divisions in France. In any event, even if numerous examples were to hand, allowance would also need to be made for two aspects of the campaign in France that, as the Bartholomew Report concluded, made it unique. Firstly, instead of traditional pitched battles, the campaign involved 'a series of fighting withdrawals' in increasingly chaotic conditions.³⁰⁸ And secondly, 'offensive spirit' within some of the territorial formations may have been 'dampened' by six months preparing defensive positions and a lack of equipment.³⁰⁹ Thus, given that the retreat to Dunkirk took place under extremely difficult conditions, with the added dynamic of constant Luftwaffe attacks, it would have been hard for many junior commanders to perform at their best however inherently capable they might have been. Indeed, as David French concluded, the Germans did not defeat the British Expeditionary Force, but they nevertheless 'out-fought and outmanoeuvred it'.³¹⁰

³⁰⁶ TNA, WO 231/247, Army Training Memorandum (No.31), dated April 1940, p.5.

³⁰⁷ IWM, Document Archive, No. 8409, Private Papers of Lieutenant-Colonel N. Field, *Winter Essay*, 1937-1938.

³⁰⁸ TNA, CAB 106/220, Final Report of the Bartholomew Committee on Lessons to be Learnt from the Operations in Flanders, June 1940-October 1940.

³⁰⁹ Ibid.

³¹⁰ French, *Raising Churchill's Army*, p. 156.

In summary then, there is a danger that platoon commanders (in the same manner as company commanders), found themselves being made a convenient scapegoat for the British Expeditionary Force's many broader failings in France. Crucially though, in relation to this study, there is little evidence from the campaign in France to support the notion that swathes of junior commanders in XII Corps and the GHQ Reserve, in the summer of 1940, were simply not up to the job.

In conclusion, there were inevitably issues relating to the calibre of leaders generally across the three Army corps that would have been tasked with repelling an invasion in the late summer of 1940. Brooke's opinion that company commanders needed to be better trained to instil a more offensive mindset, is doubtless correct, given his immense experience and perceptiveness. However, it is also true that it was deficiencies within a minority of the senior commanders across XII Corps and the GHQ Reserve, that would have probably been of greater concern in the event of an actual invasion. It should also be noted, once again, that most of the divisional and brigade commanders within these key formations had not fought in France as part of the British Expeditionary Force and so would have been leading their units into combat against the Wehrmacht for the first time. How these apparent leadership deficiencies would have impacted the overall morale of front-line forces is difficult to assess, but the experience of parts of the French Army during the Battle of France leaves us in no doubt of just how quickly significant early reverses in battle can demoralise commanders at all levels and how rapidly this can cascade down to ordinary soldiers.³¹¹

³¹¹ For a full account of the panic that gripped local French commanders and their formations after the German Army successfully crossed the Meuse at Sedan on 13 May 1940, see; Alistair Horne, *To Lose a Battle*, Chapter 12, The Crossing, pp. 320-372.

Chapter Two

The Physical Component of ‘Fighting Power’

Chapter Two examines the fighting capability of the forces tasked with repelling an invasion in relation to the Physical Component of ‘Fighting Power’ (i.e., Manpower, Equipment and Training), in the summer of 1940. It will also examine the degree to which the Royal Air Force had both the aircraft and the training to provide appropriate levels tactical air support in the event of landings taking place.

Manpower

Within the Model of Fighting Power, ‘Manpower’ is defined not simply in terms of the number of troops, but the ability to attract and retain the right people with the ‘right skills’.³¹² This definition is less relevant in 1940 given that conscription was in operation, so here the emphasis should perhaps be more upon the ability to train recruits in the right skills. But the key point is that ‘Manpower’ concerns quality as much as quantity. Not surprisingly, much has been written about the issue of ‘Manpower’ in the British Army in the late 1930s, as war approached.³¹³ A particular focus has been upon the time when it became increasingly clear to Chamberlain’s government (after the optimism that followed the Munich Crisis began to fade), that Britain would before long, almost inevitably, have to send a field army to fight a continental war, alongside France.³¹⁴ Expanding the Army thus became a huge priority, as evidenced by the decision subsequently taken in February 1939 by Neville Chamberlain’s cabinet (and specifically by the then Secretary of State for War, Leslie Hore-Belisha), to double the size of the Territorial Army from 170,000 to 340,000 by May of that year – something subsequently accompanied by a change in Army policy to allow territorial recruits to be sent overseas if war was declared. Furthermore, in April 1939, universal male conscription was introduced. As a result of this drive the Territorial Army totaled some 430,000 (of whom 113,00 were allocated to anti-aircraft defence duties) and the Regular Army had

³¹² British Army Doctrine Publication, AC 71940, Land Operations, and Warfare Development Centre, Chapter Three, *Fighting Power*, The Physical Component, 3-13.

³¹³ For a general discussion of this topic see; French, *Raising Churchill’s Army* and Allport, *Browned Off and Bloody Minded*.

³¹⁴ J. P. Harris, *Men, Ideas and Tanks: British Military Thought and Armoured Forces, 1903 – 1939*, (Manchester: Manchester University Press, 1995), p. 297.

grown to some 235,000 by the outbreak of war in September 1939.³¹⁵ But by June 1940, the Army had grown to 1.65m - and had increased again, to some 1.88m, by the end of September 1940.³¹⁶ Inevitably, this phenomenal rate of growth brought with it numerous of issues.

For one thing, the quality and suitability of some of the men the Army now received from the intake of conscripted troops was mixed. For many, the Army was seen as the least attractive of the three services and thus not their first choice when they were called up. This is a key point made by Major-General A.K. Piggott's 1949 study, in which he concluded that the Army, in late 1940, had to be content with what was left over, which he categorised as often comprising, 'the unwilling, the least intelligent and least desirable'.³¹⁷ Alan Allport, in his 2015 study, made the point that by 1941 the Army was only attracting about one in four volunteers. Furthermore, it was the only one of the three services that relied upon conscripts and it often did not even get the best of these. Thus, in 1941, out of 2.2m men registered for potential conscription 50% wanted to join the Royal Air Force or the Royal Navy (which together needed only 180,000).³¹⁸ Furthermore, Allport also concluded that given that some five million civilians were reserved for the industrial labour force, this meant that the new Army recruits in 1939 and 1940 tended to include, 'Shopkeepers, bricklayers, bank clerks, confectioners, bespoke tailors, accountants and school teachers'.³¹⁹ Many of these, according to Allport, had little interest in being in the Army partly because they were better educated than the typical inter-war Army recruit and also because they were more affluent. This, he claimed, did always not fit well with Army life. As one study by Mass Observation found in 1940, the majority of conscripts were joining up with a mixture of, 'readiness, reluctance, relief and negative interest.'³²⁰ Just as with Army conscripts the world over, the huge numbers of new recruits of 1939 and 1940 needed molding and integrating before they could become operationally effective.

³¹⁵ LHCMA, ADAM MSS 3/1, Notes for Secretary of State for War's Estimates Speech: AG Department, 15 February 1941.

³¹⁶ Central Statistics Office, *Fighting with Figures; A Statistical Digest of the Second World War*, (London: C.S.O, 1995), p. 39.

³¹⁷ Major-General A.K. Piggott, *The Second World War, 1939 – 1945, Army; Manpower Problems*, (The War Office; 1949), p. 63.

³¹⁸ Allport, *Browned Off and Bloody Minded*, p. 71.

³¹⁹ *Ibid*, p. 75.

³²⁰ S. Mackenzie, *Politics and Military Morale: Current Affairs and Citizenship in the British Army, 1941 to 1950* (Oxford, 1992). p. 86.

But the sheer numbers and the lack of consultation that had taken place with the Army before the expansion was announced by the government, made that difficult.³²¹ Between April and June 1940 alone, some 426,000 recruits (volunteers and conscripts) joined the Army, most of whom ended up in the Territorial Army which by early 1940 was legally able to send its troops overseas.³²² Although training within the three Army Corps under consideration in this study will be investigated later in this chapter, it is important to note the paucity of basic training, never mind equipment, that awaited many newly-conscripted young men in the summer of 1940. In essence, there were simply too many men and too few instructors – or at least too few of the right calibre. As Alexander James concluded in his studies of the Territorial Army at the beginning of the war, few territorial NCO's back then made top-rate trainers and new territorial officers had often themselves received very little training in command and leadership.³²³ Furthermore, Jones notes that when, in January 1940, the first echelon of three so-called, 'first-line' territorial divisions (i.e., 48, 50 and 51 Divisions) arrived in France, they had not undertaken what he regarded as an adequate period of training in the UK and were thus not at that time ready for active service.³²⁴ Furthermore, the overall provision of proper basic training to the rapidly expanding Army in 1939 and 1940, was hampered by the way this growth was organised.

As war approached, it was the Territorial Army that was seen by the government as providing the framework around which its target of expanding the Army to fifty-five divisions would be achieved – (it is important to note that, during 1939, every wartime recruit, volunteer or conscript, was deemed to have enlisted in the Territorial Army).³²⁵ The 'model' for expansion involved each existing territorial battalion creating a second-line duplicate of itself which would then be populated with conscripted men – with regular forces providing instruction. In the event, this meant that each territorial battalion was being asked to surrender half of its precious reserve of experienced officers and NCO's – something which caused unit

³²¹ Allport, *Browned Off and Bloody Minded*, p. 72.

³²² By early 1940, three territorial divisions, the 48th (South Midland), the 50th (Northumbrian) and the 51st (Highland) had arrived in France. Peter Dennis, *The Territorial Army, 1906 – 1940*, (Exeter: Short Run Press, 1987), p.255.

³²³ Dr Alexander Jones, 'Never Again? The Role of the Territorial Army in the Military Plans for Expansion, (1919 – 1939)', in *How Armies Grow, The Expansion of Military Forces in the Age of Total War, 1789 – 1945*, ed. by Matthias Strohn (Oxford: Casemate, 2019, pp. 96-112, (p. 106).

³²⁴ Alexander Jones, 'Pinchbeck Regulars? The Role and Organisation of the Territorial Army, 1919-1940', (unpublished doctoral thesis, Oxford University, 2016), p. 227.

³²⁵ WO 163/49, OS.44, memorandum by Chief of the Imperial General Staff entitled, *The Employment of Territorial Army Officers Reported Upon as Unfit to Command in War*, dated March 1940

cohesion to suffer.³²⁶ This is borne out within XII Corps in the south-east by the experience of 1 (London) Division guarding Kent. Its commanding officer Major-General Claude Liardet, later described in a letter to Basil Liddell Hart how debilitating it had proved, back in 1939, for his division to have to transfer half its manpower (and equipment) to the newly-created, 2 (London) Division. It was he complained, ‘a shocking business’.³²⁷ This policy of splitting territorial units in half, led to the categorisation of the twenty-four territorial divisions (out of the Army’s total 33 divisions) in 1939, as either being ‘first-line’ or ‘second-line’, with the latter typically being shorter of both training and equipment by the beginning of the war than ‘first-line’ territorial formations.³²⁸ To help address the resulting lack of experience in the newly-created battalions, a programme of ‘stiffening’ territorial units with regular personnel (beyond just instructors) was begun soon after mobilisation. Thus, in France, one territorial battalion in each territorial brigade with the British Expeditionary Force was substituted with a regular unit. However, this study has found no evidence in war diaries that the territorial divisions (either first-line or second-line) that remained in the UK in late 1939 and went on to form the backbone of XII Corps and the GHQ Reserve, had been so ‘stiffened’ before the outbreak of war, or that they were augmented with regular troops in the months immediately following Dunkirk. Thus, experience appears to have been lacking where it might have been needed most in the event of an invasion.

James Alexander was undoubtedly right when he stated that, at the outbreak of war, the Territorial Army (and thus the Army as a whole) was, ‘caught in a state of transition’. It is estimated, for instance, that by mid-1939, some 65% of territorial soldiers had served less than a year and half of them had been ‘in’ for less than six months.³²⁹ It is also important to state that, by December 1939, the government attempted to abolish the distinction between territorials, regulars and militiamen with the Armed Forces (Conditions of Service) Act of 5 December 1939. Henceforward all soldiers were part of the British Army – with the Territorial Army simply being absorbed into the national effort and with soldiers now referred to as ‘national service-men’. It was at this point that the territorial Army removed the ‘T’ from their lapels and epaulettes.³³⁰ Be that as it may, the reality was well summed up by the then Adjutant-

³²⁶ Jones, ‘The Role of the Territorial Army’, p. 96.

³²⁷ LHCMA, Liddell Hart MSS 1/445, Major-General C. Liardet to Liddell Hart, 14 August 1965.

³²⁸ French, *Raising Churchill’s Army*, p. 187.

³²⁹ P. Caddick-Adams, ‘Phoney War and Blitzkrieg: The Territorial Army, 1939-1940,’ *RUSI Journal*, Vol.143 No.2 (April 1998), p.68.

³³⁰ P. Caddick-Adams, ‘Phoney War and Blitzkrieg: The Territorial Army, 1939-1940,’ *RUSI Journal*, Vol.143 No.2, (April, 1998), pp. 67-74.

General, Robert Adam in 1941; when looking back to the year before he concluded that most of the Army's energies up to May 1940 had been diverted to the task of, 'bringing some order to the chaos of territorial manpower'.³³¹

Key to that task, as the British Army expanded rapidly, concerned the integration of its new recruits. Notwithstanding the deficiencies that existed in relation to basic training, it took time for conscripted officers and men to be 'accepted', as is well demonstrated by the experience of William Mills who was conscripted in 1940 and allocated to the Middlesex Regiment (a territorial machine gun unit) as a junior officer. Despite being immediately involved in the construction of beach defences on the Isle of Wight he claimed that, as a conscripted officer, he always felt 'looked down upon' by the 'regular' territorial officers in the mess.³³² Integration was also impeded by the resentment that many new territorial volunteers felt when they discovered, as some of them did, that the conscripted units alongside them often had better equipment. This stemmed, it appears, from a practical decision within the War Office to ensure that conscripts had the best of what was available to help maintain their morale in the face of the common lack of willingness to be conscripted. Thus Francis Docketty, having volunteered for the Territorial Army in 1937, was underwhelmed to find in 1940 that his searchlight company had outdated sound detection equipment (and had also not been issued with puttees to combat the mud). This contrasted with the conscripted men in another of his battalion's searchlight companies who had the latest electronic listening sets and a change of uniform. 'We were the volunteers but we felt we were being kicked aside and that any second-hand stuff would come to us', he recalls.³³³

Crucially, though, the challenge of integrating newly-conscripted (and often under-trained) troops must have reduced the fighting capability of those units receiving large numbers of them as the invasion crisis grew. Thus, it is important to explore how the 'integration challenge' impacted the three Army Corps under investigation within this study. This has not proved easy. Using war diaries from XII Corps and the GHQ Reserve, this study has tried to establish how much of a typical battalion's strength in September 1940 was accounted for by newly conscripted men still relatively fresh from their (often curtailed) basic training. Sadly, little evidence has been found in unit war diaries, at either corps, division, or brigade level. Where

³³¹ Jones, 'Pinchback Regulars', p. 22

³³² IWM, Sound Archive: No. 22685/2, William Mills, Officer, Middlesex Regiment.

³³³ IWM, Sound Archive, No. 4822/1, Francis Docketty, 316 Searchlight Battery.

some evidence has come to light, largely from battalion war diaries from the summer of 1940, it is inevitably fragmented and inconsistent. And War Office files from the Adjutant-General's Directorate at the War Office bring few insights into just how well integrated new recruits into XII Corps or the GHQ Reserve were by the late summer. But what has emerged from the analysis is that, surprisingly, many infantry battalions in XII Corps and the GHQ Reserve appear to have been below their establishment as the invasion crisis peaked, even though they were front-line units tasked with repelling a likely invader.

For example, within XII Corps, a sample of six battalions from across 1 (London) Division guarding Kent and 45 (West Country) in Sussex, shows them (overall) to be some 10% below their establishment at the end of September 1940.³³⁴ Even more surprising is that deficits also existed in some of the infantry divisions comprising the GHQ Reserve. Thus, looking at a sample of seven battalions from 43 (Wessex) Division (IV Corps), it is evident that they were some 11% below their establishment at the end of September 1940.³³⁵ The data does not provide a breakdown of this deficiency across different trades within the Army, so the real impact of this deficit may have been worse than the 11% implies. This is especially unexpected given that 43 (Wessex) Division is clearly shown by Winston Churchill, in *Their Finest Hour*, to have been at 100% of its establishment by early September 1940.³³⁶ The fact that there were still gaps in the ranks of at least some of the GHQ Reserve's infantry formations at the peak of the crisis, must have affected fighting capability. Furthermore, even where formations within XII Corps and the GHQ Reserve had subsequently achieved full establishment by September 1940 this would, most likely, have been achieved by the absorption of newly-conscripted and relatively untrained troops. Thus, 42 (East Lancashire) Division, sustained significant losses defending first the 'Dunkirk Corridor' and then the 'Dunkirk Perimeter' – (as outlined on page 21 of Chapter One of this study). Before it was transferred into IV Corps (and thus the GHQ Reserve) in September 1940, the substantial gaps in its ranks in June 1940 would have been filled with conscripted servicemen and/or territorials transferred from other second-line units

³³⁴ TNA, WO 73/146, Office of the Commander in Chief and War Office: General Return of the Strength of the British Army on 30 September 1940, (8th Battalion, Royal Fusiliers, 9th Battalion, Royal Fusiliers, 8th Battalion, King's Regiment, 6th Battalion, Devon Regiment, 5th Battalion, Somerset Light Infantry and 7th Battalion, Somerset Light Infantry - total strength of 5,143 v's total establishment: of 5,724).

³³⁵ TNA, WO 73/146, Office of the Commander in Chief and War Office: General Return of the Strength of the British Army on 30 September 1940, (4th Battalion, Hampshire Regiment, 2/4th Battalions, Hampshire Regiment, 5th Battalion, Hampshire Regiment, 4th Battalion, Somerset Light Infantry, 7th Battalion, Hampshire Regiment, 4th Battalion, Dorset Regiment, 5th Battalion, Dorset Regiment – total strength of 5,975 as of 30 September 1940, verses a total establishment of 6,699).

³³⁶ Churchill, *Their Finest Hour*, State of Readiness of Infantry Divisions as of 31 August 1940, p. 243.

– as per War Office policy at the time.³³⁷ Looking at a sample of the battalions within 42(East Lancashire) Division, the strength of the division as a whole was most likely to have been at almost 100% of its establishment by the end of September 1940 – something which could only have been achieved with a substantial influx of inexperienced new soldiers.³³⁸

The battalion war diaries from XII Corps reveal a similar picture when it came to filling gaps in the ranks. Thus, the 1st Battalion, London Scottish Regiment (2 London Brigade) based around Canterbury, was only at 35% of its establishment on 9 February 1940 which, according to its war diary, was hampering training.³³⁹ Although the war diary does not state the battalion's precise establishment, it would appear to have been around 900 men given that its commanding officer, Lieutenant-Colonel Bennett, visited a Lieutenant-Colonel Maxwell in London (presumably at the War Office) on 15 February, to discuss the raising of 600 recruits.³⁴⁰ It duly received 237 conscripted new recruits on 15 March 1940 - presumably a first tranche. However, most of these would have lacked much experience beyond a short period of basic training which is relevant given that, only a few months later, the north Kent coastline was seen as a prime site for a potential invasion. A similar situation occurred within the 2nd Battalion, South Lancashire Regiment (29 Independent Brigade and thus part of the XII Corps 'reserve' in September 1940), based in Haywards Heath. This battalion had orders to counter-attack towards Newhaven, should the Germans have landed there and yet, on 1 August, it received 68 new conscripts fresh from an Infantry Training Centre (ITC), to bring it up to full establishment.³⁴¹ Although there is no reason why these new troops could not have been turned into highly effective soldiers over time, this could not have been done by the peak of the invasion crisis some six weeks later.

Likewise, the 1st Battalion, Royal Irish Fusiliers (part of 134 Brigade) had, as part of the British Expeditionary Force's rearguard, sustained a total of 95 casualties during actions at

³³⁷ K.J. Drewienkiewicz, 'An Examination of the Build-Up, Early Training and Employment of the Territorial Army in the Lead-Up to, and in the Early Days of, the Second World War,' (Royal College of Defence Studies Dissertation, 1992), pp. 26-27.

³³⁸ TNA, WO 73/146, Office of the Commander in Chief and War Office: General Return of the Strength of the British Army on the 30 September 1940, figures showing battalion strength for; 1st Battalion, Border Regiment, 1st Battalion, East Lancashire Regiment, the 5th Battalion, Border Regiment and the 4th Battalion, East Lancashire Regiment.

³³⁹ TNA, WO 166/4439, war diary of 1st Battalion, London Scottish Regiment, 1940, entry for 9 February 1940.

³⁴⁰ Ibid., entry for 15 February 1940.

³⁴¹ TNA, WO166/4678, war diary of 2nd Battalion, South Lancashire Regiment, August 1940.

Audenard and then La Bassé, prior to escaping to Dunkirk.³⁴² It subsequently found itself defending Rye in September 1940, where its war diary reveals that the battalion received 75 new recruits on 6 September fresh from its Infantry Training Centre (ITC) at Ballykinder – while the battalion was on full invasion alert. A further 130 newly conscripted soldiers subsequently also arrived from the ITC on 7 October.³⁴³ Given its establishment of 900 men, the fact that over 200 of these young men were brand new at the peak of the invasion crisis is noteworthy. Similarly, further along the coast at Romney Marsh, Frederick Jane, a Private in the 5th Battalion, Somerset Light Infantry, spent most of the summer of 1940 ‘standing to’ each night manning the beach defences, despite the fact that he only joined the battalion in May 1940 fresh from twelve weeks of basic training in Taunton.³⁴⁴ Finally, as noted in Chapter One, the three battalions of 35 Brigade, stationed in north Kent, had each suffered significant manpower losses in France. The fact that they were at full establishment by the end of September 1940, could only have been achieved by the addition of a large quantity of newly-conscripted men between June and September, fresh from whatever basic training they had received.³⁴⁵

Nor possibly, would many of these new conscripts have necessarily gained much ‘fortitude’ from some of the men manning defences alongside them, from the battalions that made up 35 Brigade - (as already noted, a third-line territorial formation which suffered badly in France). Bertram Pratten for instance, a young NCO states that although his battalion was well organised in France and that its four companies were not totally untrained (they alternated on different days between digging fortifications for eight hours a day and undertaking weapons training and exercises), they were poorly equipped for what followed when the attack in the west started. Firstly, the train carrying both the 2/6th Battalion and the 2/5th Battalion to Arras was attacked by Luftwaffe fighters and machine-gunned down its entire length. Secondly, having been sent back south to Abbeville he was ordered by a Major to lie in a road facing the advancing Germans with a Boyes anti-tank despite lacking any ammunition – in an apparent attempt to frighten the enemy off. And thirdly, he had to undertake a forced march with his battalion of some seventy miles across open county back to Cherbourg – a journey that took two weeks

³⁴² *1st Battalion Royal Irish Fusiliers and the Fighting Retreat to Dunkirk*, www.wartimenu.com (accessed 20 January 2022).

³⁴³ TNA, WO166/4553, war diary of 1st Battalion, Royal Irish Fusiliers, September and October 1940.

³⁴⁴ IWM, Sound Archive, No. 22163/1, Frederick Jane, Private, 5th Battalion, Somerset Light Infantry.

³⁴⁵ TNA, WO 73/146, Office of the Commander in Chief and War Office: General Return of the Strength of the British Army on 30 September 1940, figures showing battalion strength for: 2/5th Battalion, Queen’s Royal Regiment, 2/6th Battalion, Queen’s Royal Regiment and the 2/7th Battalion, Queen’s Royal Regiment.

because it was only safe to travel at night.³⁴⁶ Thus, he could be forgiven for not having had much appetite for facing the Wehrmacht again just three months later, or for enthralling new recruits about the prospect of doing so – even though he stops short of stating this in his testimony. The key overall point here, is that in September 1940 a sizeable proportion of the troops in units within XII Corps that had also been to France, were new recruits who had replaced the losses incurred during that campaign. Just how well these brand-new soldiers would, or could, have fought in the event of an invasion is open to debate, but it would perhaps have been asking a lot to expect them to fight an invader to the ‘last man’.

Crucially, though, another key area where the shortage of experience amongst newer recruits would have been an issue in the event of an invasion, was within the GHQ Reserve’s critical counter-attacking armoured forces. Many of these formations, for example, 4 Royal Tank Regiment (1 Army Tank Brigade) and 1 Armoured Division, had returned from France with significant gaps in their ranks. 4 Royal Tank Regiment, for example, had sustained 35% casualties during the counter-attack at Arras and 1 Armoured Division had lost all but one of the cruiser tanks it had taken to France along with many of their crews, either at Calais in May or south of the Somme in June. These crews were hard to replace at speed, something underlined by Arnold Green, a trooper in 44 Royal Tank Regiment (which was allocated to 1 Army Tank Brigade in Surrey on 12 September). According to him it took nine months to train a tank soldier, given that he had to learn to drive, operate the 2-pounder gun and use the wireless.³⁴⁷ Thus, new arrivals filling gaps in the ranks of 4 Royal Tank Regiment as it re-assembled in June back in the UK, would have had much to learn and little time in which to do it.

Also, it transpires that basic training for tank crews at the various tank schools in the summer of 1940 rarely involved actual tanks— as there were simply too few of them to be spared. Thus, Major-General George Richards was tasked in 1939 with setting up the Tactical School of Tank Warfare at Bulford. As per the Field Service Regulations, this school taught new Royal Tank Corps crews both how to fight on their own as a brigade and how to use their tanks to work with infantry. Sadly though, he recalls that the school had no actual tanks to train on until the

³⁴⁶ IWM, Sound Archive No. 6233/2, Bertram Pratten, NCO, 2/6th Battalion, Queen’s Royal Regiment, Reels 1 and 2.

³⁴⁷ IWM, Sound Archive, No. 18345/1, Arnold Green, Trooper, 44 Royal Tank Regiment, I Army Tank Brigade.

middle of 1940. Nor, according to him, had many of the newly-recruited course attendees ever seen a tank before.³⁴⁸ Finally, it is worth underlining that some of the newly-conscripted young officers that found themselves in the GHQ Reserve's armoured formations were very inexperienced. Phillip Daniel, for instance, an officer in the Royal Artillery, having completed basic training (including time at an Officer Cadet Training Unit), was sent to join a Light Anti-Aircraft Regiment attached to 1 Armoured Division in the summer of 1940. He did so in the full knowledge that he might find himself counter-attacking an invasion attempt. As he puts it, 'We knew that if the Germans attacked with sufficient armour we were probably going to perish'.³⁴⁹

Although this study is not formally examining the impact of the Local Defence Volunteers (LDV) upon 'Fighting Power', it is nevertheless noteworthy that deficiencies in the numbers of fully trained soldiers within XII Corps and the GHQ Reserve (IV and VII Corps), would not have been counter-balanced by much tangible fighting support from the LDV, had an invasion materialised in September 1940. This issue will be explored in more detail in Chapter Three but suffice it to say for now that, although there were some twenty-six LDV units in Sussex by September 1940, few had rifles and those that did, tended to see their roles as being primarily to guard roadblocks and round up small groups of parachutists, rather than fight alongside Army units. This point is further confirmed by Bob Cassell who joined the LDV in Hampshire in April 1940. According to him, 'Troops guarded the coast, not the Home Guard.'³⁵⁰

In summary then, although the quantity of manpower was less of an issue for XII Corps or the GHQ Reserve, the quality of some of their (newer) manpower undoubtedly was a concern in September 1940. The need to integrate young, sometimes unwilling and relatively untrained men, at speed, as the threat of invasion loomed must have been a significant drain upon resources for the each of three Army corps under investigation. How much this impaired their fighting capability is hard to state with certainty, but it must have had an impact. Also, Brooke must have concluded that he lacked sufficient trained and experienced manpower to repel an invasion in the summer of 1940 given that, in November, he requested considerably more

³⁴⁸ IWM, Sound Archive, No. 866/7, Major-General George Richards, (Head of Tactical School of Tank Warfare 1940/41).

³⁴⁹ IWM, Sound Archive, No. 19670/1, Phillip Daniel, Officer, 20th Light AA Regiment, Royal Artillery.

³⁵⁰ IWM, Sound Archive, No. 15352/3, Bob Cassell, Private, 22nd Battalion, Hampshire LDV/Home Guard.

resources to defend the country in 1941.³⁵¹ His demands included some four armoured divisions, four Army tank brigades and sixteen infantry divisions as a mobile reserve, (with three in Kent, two in Sussex and three in East Anglia). Furthermore, he requested three brigade groups and five independent brigades – along with some eight ‘second class’ divisions to guard the coast. In total, this was a multiple of what had been under his command in September 1940 and (not surprisingly) was also a significant multiple of what he ended up with as 1941 unfolded. But the key point is that Brooke clearly felt he was very short of the overall manpower (let alone well-trained manpower), required to keep the country safe from an invasion as the crisis peaked.

³⁵¹ TNA, WO 199/569, Paper by General Sir Alan Brooke, *‘Military Defence of the United Kingdom’*, dated 27 November 1940.

Equipment

Overall levels of equipment and the quality of that equipment are clearly a vital component of any assessment of 'fighting power'. In the case of the British Army in September 1940, an important starting point in examining equipment within the three Army corps under investigation by this study is to note the reductions in overall expenditure on the Army during the interwar period, largely thanks to spending constraints caused mainly by the Great Depression. These will be explored in more detail during the examination of 'armoured doctrine' in Chapter Three of this study. The other key factor relating to equipment levels, as the invasion crisis peaked, was the amount of military materiel that had been lost only a few months previously during the land campaign in France. Along with every other aspect of the British Expeditionary Force's experience during the Battle of France, this topic has been well-documented in terms of losses of tanks, Bren carriers, field artillery, anti-tank guns, mortars, machine guns, radios and road transport. It thus does not warrant further investigation via primary sources for the purposes of this study other, than to emphasise that the equipment losses, particularly of transport, were very considerable indeed and included; 2,347 artillery pieces (55% of total inventory), 509 2pdr anti-tank guns (60% of total inventory), 615 tanks (47% the total available) and 63,879 vehicles.³⁵² It is also worth underlining that even without these losses the British Army had only relatively recently been receiving what could be termed 'modern equipment'. Thus Major-General Humphrey Bredin is clear that, up to 1938, the Army was almost entirely equipped as it had been in the First World War.³⁵³ Its only new weapons, in his view, were the Bren gun, the carrier and the 25-pounder field gun and even these had only just started to arrive as his unit prepared to embark for France. As will be explored later in this chapter, only the newest marks of the Army's tanks in mid-1940 could be described as 'modern'.

In the immediate aftermath of Dunkirk therefore, the equipment situation for the British Army as whole was problematic. But, amongst the forces within XII Corps guarding the south-east in June 1940, the situation can only be described as 'poor' – despite a high perceived threat of imminent invasion. This can be illustrated by a memo written to Churchill by Major-General Hastings Ismay (the Secretary of the Chiefs of Staff Committee), emphasising that in his view

³⁵² Forczyk, *Operation Sea Lion*, pp. 21-23.

³⁵³ IWM, Sound Archive, No. 12139/3, Humphrey Bredin, Major-General, (but a platoon commander in 1940), 2nd Battalion, Royal Ulster Rifles, 9 Brigade, 3 Division.

the Germans had undoubtedly by now developed a detailed plan for invasion and were determined to secure a firm bridgehead on British soil, even if that came at a high price.³⁵⁴ Worryingly, equipment levels amongst the two divisions within XII Corps that would have had to prevent such a bridgehead being established, were particularly poor. So poor in fact within 1 (London) Division in Kent, that its commanding officer Major-General Claude Liardet complained to Eastern Command HQ on 31 May that that his division had virtually no anti-tank guns (it should have had forty-eight), no medium machine guns, no anti-tank rifles and no armoured fighting vehicles.³⁵⁵

At the same in neighbouring Sussex, 45 (West Country) Division had only twelve 25-pounder field guns, six 2-pounder anti-tank guns and some sixty-three carriers.³⁵⁶ In some instances, the situation could best be described as ‘desperate’. For instance, Captain Patterson, an Army doctor who had been at Dunkirk and who subsequently found himself stationed in St Margaret’s Bay in June 1940 as part of Dover’s defences, confided to his diary that ‘Even the troops on the coastline have only the bare minimum of weapons. One officer in a neighbouring battalion has only a .45 Webley revolver with three rounds.’³⁵⁷ Similarly dire was the fact that only 122 (2 pounder) anti-tank guns existed across the whole of the UK, along with a mere 295 of the new 25-Pounder field gun.³⁵⁸ It is no wonder then that, when the King visited the 6th Battalion, Somerset Light Infantry at Dymchurch on 1 July 1940, his first question to the troops he inspected was about the state of their equipment.³⁵⁹

What is important for this study, though, is the extent to which these equipment losses had been replenished by September 1940, particularly in the three Army corps under investigation and what the perceived quality of those weapons was, in the light of the Army’s experience in France. Sadly however, precise inventories of weapons at front-line units are challenging to assess given the paucity of reliable data, both in war diaries and in central War Office files. The one exception to this is tanks, which were easy to count not least because they were large and generally concentrated in a small number of specific locations. In the summer of 1940, they were also thin on the ground. However, despite the paucity of inventory records, the firm

³⁵⁴ TNA, CAB 65/7: WM 113rd (40): 11, 22 May 1940, Annex: Minute from Major-General Hastings Ismay to Sir Winston Churchill, dated 22 May 1940.

³⁵⁵ Newbold, ‘British Planning to Resist Invasion’, p. 153.

³⁵⁶ *Ibid.*

³⁵⁷ IWM, Document Archive, No. 13225, private papers of Captain Patterson, diary entry for 15 June 1940.

³⁵⁸ TNA, CAB 80/12: COS(40) 417), 31 May 1940.

³⁵⁹ TNA, WO166/4567, war diary of 6th Battalion, Somerset Light Infantry, July 1940.

conclusion of both Newbold and Forczyk is that significant shortages persisted though the summer of 1940 in areas such as mortars, carriers, light machine guns and field guns, not to mention light anti-aircraft guns and wireless sets. Furthermore, the shortage of 2 pounder anti-tank guns was so great that most formations only had some 25% of their correct establishment when the invasion crisis peaked, a situation that took until late 1941 to be properly addressed.³⁶⁰ However, although a robust analysis of equipment levels by formation within XII Corps and the GHQ Reserve in September 1940 is impractical, there are still many valid insights gathered from war diaries, personal testimonies and assorted War Office and Air Ministry files, that prove that the ‘fighting power’ of these forces was indeed diminished by issues relating to both the quantity and quality of their equipment and by both the capability and availability of the aircraft that might have offered them tactical air support.

Infantry weapons

Beginning with the lighter infantry weapons, shortages clearly remained as the invasion threat peaked. Even by 15 December the Home Forces were still some 180,000 .303 rifles short of their planned establishment and were hard at work trying to get 70,000 such rifles back from the Local Defence Volunteers – according to a meeting General Sir Alan Brooke presided over at the end of 1940.³⁶¹ Similarly, given that over 8,000 Bren guns had been left behind in France, it is not surprising that shortages of these endured throughout the invasion crisis. In this regard it is noteworthy that Major G. Dyas, of the Queen’s Own Royal West Kent Regiment, reflects in his memoir how ‘galling’ he found it finally boarding a ship alongside the mole at Dunkirk, only to find that the Navy was insisting all rifles and particularly Bren guns, be thrown overboard – as he could see that ‘in a month’s time, in England, they would have been worth their weight in gold.’³⁶² His words were prophetic because the subsequent shortages of this vital infantry weapon, especially within XII and the GHQ Reserve’s infantry formations, would have had a considerable impact upon their ‘fighting power’ in the event of an invasion. In *Their Finest Hour* Churchill went to some lengths to show equipment levels across infantry divisions in the UK by early September 1940.³⁶³ His figures in relation to XII Corps and the

³⁶⁰ For a fuller articulation of equipment shortages by September 1940, see; Forczyk, *Operation Sea Lion*, p. 223-236 and Newbold, ‘British Planning and Preparations to Resist on Land’, pp. 394-395.

³⁶¹ TNA, WO199/3056, Notes on Equipment and Ammunition, Minutes of Commander in Chief Home Forces Conference, December 1940.

³⁶² IWM, Document Archive, No. 22279, memoir by Major G. Dyas, 5th Battalion, Queen’s Own Royal West Kent Regiment, chapter III, p. 45.

³⁶³ Churchill, *Their Finest Hour*, State of Readiness – Infantry Divisions, p. 243.

GHQ Reserve (some six infantry divisions) are summarised in Appendix II.³⁶⁴ Looking at Churchill's reported numbers for what he terms 'light machine guns', it appears that these formations had on average about 87% of their establishment of 'light machine guns' by September 1940 – with 1 (London) Division and 45 (West Country) Division having 80% and 90% respectively.

But Churchill's figures present some problems. Firstly, he did not define what he meant by 'light machine guns'. Clearly his definition included the vital Bren gun, but it must include at least some other weapons given that his analysis in *The Finest Hour* states that the establishment of 'light machine guns' for an infantry division in September 1940, was 698 weapons – whereas the establishment of Bren gun per division by 1938, as cited frequently in the historiography, was 432 weapons.³⁶⁵ This was based on 1 Bren gun per section for each of an infantry battalion's four companies plus a further four guns for a battalion's headquarters anti-aircraft platoon.³⁶⁶ Churchill, as will be noted later in this chapter, does not list separate figures for the Vickers machine gun or the Lewis machine gun, so these may be included in his definition of 'light machine gun' and thus the divisional establishment of 698 guns. However, as will also be discussed later, the number of Vickers machine guns attached to each division was a mere forty-eight guns and most of the (First World War vintage) Lewis guns were 'owned' by Anti-Aircraft command. So, sadly, Churchill's establishment figure of 698 'light machine guns' remains unexplained.

Primary sources make it clear that there was of a shortage of Bren guns as the invasion crisis peaked. However, how bad that shortage really was amongst XII Corps and the GHQ Reserve has proved hard to pin down precisely. A good reference point is the Home Forces Conference, that Brooke chaired in December 1940, during which it was stated that, on average, the formations guarding the whole of the UK's still only had 50% of their establishment of Bren guns – a worryingly low number.³⁶⁷ Also, the War Office file of the same meeting reveals that even by December 1940, the production output of Bren guns available to the Home Forces, was still only 1,000 per month.³⁶⁸

³⁶⁴ Appendix II, Selection of Equipment Levels across XII Corps and the GHQ Reserve – [Source; Churchill, *Their Finest Hour*, State of Readiness – Infantry Divisions, as of 7 September 1940, p. 243].

³⁶⁵ For example; French, *Raising Churchill's Army*, p 38.

³⁶⁶ Gary Kennedy, *Organisation of the British Infantry Battalion, 1939 to 1945*, August 2018, p. 9, www.bayonetstrength.uk – [Accessed 5/12/2021].

³⁶⁷ TNA, WO 199/3056, Minutes of Commander-in-Chief, Home Forces, Conference, 5 December 1940.

³⁶⁸ Ibid., memo entitled; *Note of Equipment and Ammunition*, dated 5 December 1940.

That said, the shortage appears not to have been so bad when looked at across the whole of the Home Forces - as opposed to just the formations guarding the coastline. One of the appendices within a second War Office file relating to the same Home Forces conference reveals that, by November 1940, the Home Forces (not including the two armoured divisions) had 72% of its establishment of these weapons - 16,883 Bren guns to be precise.³⁶⁹ However, this tells us little of the true situation in XII Corps and the GHQ Reserve and the evidence suggests these key formations had less than 72% of their establishment of these vital infantry weapons, conceivably quite a lot less. For Eastern Command's own listing of its Bren guns in late July 1940 reinforces that they were very thin on the ground at the time. At the time Eastern Command covered both the south-east (XII Corps) and the east coast (south of the Wash). It contained six infantry divisions, including 1 (London) Division and 45 (West Country) Division in Kent and Sussex. Its formations did not include the central GHQ Reserve. The war diary of Eastern Command's Quartermaster reveals an ammunition report dated 27 July 1940. Compiled for the War Office, by Eastern Command's Head of Administration, Major-General B. O'Flaherty, it clearly states that Eastern Command had, in total, just 443 'light machine guns' and a further 261 'medium machine guns'.³⁷⁰ On the basis that the 'medium machine guns' were Vickers machine guns (given that, normally, each infantry division had a machine gun battalion of 48 guns attached to it) the figure of 443 'light machine guns' must be Bren guns and perhaps some Lewis guns. Yet, if each of the six infantry divisions within Eastern Command had an establishment of 432 Bren guns then, in total, some 2,592 of them should have been sitting in Eastern Command, not a mere 443!³⁷¹ Doubtless, the number of Bren guns amongst Eastern Command's six infantry divisions increased significantly between O'Flaherty's report of 27 July 1940 and 7 September 1940 (when Churchill's figures were dated), as replacement Bren guns rolled off the production lines. But these new Bren guns had to be allocated across the entire British Army both in the UK and overseas and it is therefore hard to see how Eastern Command's total inventory of them could have risen from 443 in late July, to anywhere approaching the 2,592 Bren guns its infantry formations should have had – only five weeks later. Thus, Churchill's figures in *Their Finest Hour* which show that that

³⁶⁹ TNA, WO 199/1648, C-in-C Home Forces Conference: points raised by Corps and Divisional Commanders, November – December 1940, GHQ Letter, H.F. 4214/G, dated November 1940, appendix entitled; *Statement of Deficiencies in Weapons of the Home Forces*.

³⁷⁰ TNA, WO 166/75, war diary of Eastern Command, Quartermaster, 1940, *Report by Major-General B. O'Flaherty*, i/c Administration, Eastern Command, 27 July 1940.

³⁷¹ Lofting, *We Shall Fight Them*, Appendix 1, British Army Order of Battle, pp. 200-207; Eastern Command's infantry divisions: XII Corps – 1 (London) Division and 45 (West Country) Division, XI Corps – 15 (Scottish) Division and 55 (West Lancashire) Division and (II Corps – 18 (Eastern) Division and 52 (Lowland) Division.

Eastern Command's six infantry divisions had on average a high percentage of their collective 'light machine gun' establishment in September 1940, feel optimistic, notwithstanding the lack of clarity about what he included in this category.³⁷²

This paucity of Bren guns amongst formations that might have sorely needed them in the event of an invasion, is also evident amongst the two brigades of New Zealand infantry that were sent into the South-East (from the GHQ Reserve) by Brooke in September 1940, to bolster inland defences around Maidstone and Ashford as part of a mobile force named 'Milforce' which also included infantry tanks from 8 Royal Tank Regiment. This force, or elements of it, would have had the crucial task of counter-attacking towards Dover in the event of an invasion.³⁷³ One of their number, a private named Thomas Beel, from the 23rd Battalion within 5 New Zealand Brigade, later gave an insightful testimony of his unit's short few months in Kent and claims that equipment was very thin on the ground. According to him, his Battalion had no anti-tank guns, artillery or carriers and its only weapons consisted of small arms, some 2-inch mortars and, most notably, some four Bren guns per company.³⁷⁴ If this is correct, four Bren guns per company would equate to about fifty percent of the establishment of nine Bren guns per company that the New Zealand force should have had in 1940 – each rifle company having an establishment of one Bren gun for each of its three sections, across three platoons.³⁷⁵ Thomas Beel's assertion is also borne out by the official history of the 23rd Battalion which states that by 8 July 1940, the battalion had only ten Bren guns and three two-inch mortars.³⁷⁶ Doubtless this situation would have improved by early September 1940, but it appears unlikely that the battalion would have been at anywhere near its total establishment of fifty Bren guns by then. One wonders whether Brooke was made aware of the issue when he inspected the New

³⁷² Churchill, *Their Finest Hour*, schematic entitled; State of Readiness – Infantry Divisions, p. 243 - [Percentage of Bren gun establishment as of 7 September 1940 for infantry divisions within Eastern Command: 1(London) Division (80%) and 45 Division (90%), in the South-East, plus 15 Division (80%) 18 Division (90%), 55 Division (95%) and 52 Division (90%) in the East (south of the Wash].

³⁷³ Joseph Cody, *Official History of New Zealand in World War Two; 21st Battalion, 5 Brigade, 2 New Zealand Expeditionary Force*, www.nxetc.victoria.ac.nz - Accessed 6/12/21.

³⁷⁴ IWM Sound Archive, No. 13110/1, Thomas Beel, Private, 23rd Battalion, 5 New Zealand Infantry Brigade, 2nd New Zealand Expeditionary Force, Kent 1940. [NB: IWM Sound archive No.13110, wrongly lists Thomas Beel as serving in the 20th Battalion, 4 Brigade. It appears he originally joined the 20th Battalion, before transferring to the 23rd Battalion. Thus, he came to the UK in May 1940, rather than going straight to Egypt with 4 Brigade.]

³⁷⁵ Gary Kennedy, *Organisation of the British Infantry Battalion, 1939 to 1945*, August 2018, p. 24, www.bayonetstrength.uk – Accessed 5/12/2021.

³⁷⁶ Lieutenant-Colonel Angus Ross, *Official History of New Zealand in World War Two, 23rd Battalion, 5 Brigade, 2 New Zealand Expeditionary Force, Kent 1940*, www.nxetc.victoria.ac.nz – Accessed 6/12/21.

Zealand force on 31 August and declared how impressed he was with what he saw? For he made no mention of its various equipment shortages in his diary.³⁷⁷

Crucially, the notion that the New Zealand force had only half its establishment of Bren guns at the peak of the invasion crisis, is also supported by Churchill's figures for 'light machine guns' in *Their Finest Hour* (summarised in Appendix II). This shows that, according to him, the New Zealand force only had some 50% of its divisional establishment by early September 1940.³⁷⁸ Once again, without an agreed definition of 'light machine guns', it is hard to draw a definitive conclusion on the precise deficiency of Bren guns that the New Zealanders had to endure, but it is safe to say that it was significant. As with many other items of equipment, the question of precise numbers of weapons in particular formations, in September 1940, is hard to assess given the lack of inventory records to be found in all levels of War Diaries from battalion up to army corps level. This is compounded by the paucity of detailed equipment inventories for September 1940 in War Office files. That said, based on the evidence available, it is safe to conclude that within XII and the GHQ Reserve, in September 1940, the six infantry divisions involved were collectively lacking significant numbers of Bren guns. Also, during an Army Commander's Conference within Southern Command on 26 October 1940, it was implied that Bren guns remained well below establishment across VIII Corps and V Corps. The minutes state that the Officer Commanding Southern Command (Lieutenant-General Sir Claude Auchinlech) had suggested that, during training exercises, 'mock-ups' of Bren guns should be used if necessary to ensure that training can be conducted with the correct establishment of one gun per section given that, 'the tactical handling of a platoon with three LMG's is very different from that with one'.³⁷⁹ Taking all this into consideration, it seems fair to conclude that Churchill's assertion in his figures that the two divisions within XII Corps had, on average, some 85% of their establishment of 'light machine guns' appears optimistic.

In terms of Bren gun numbers within the infantry formations that sat in the GHQ Reserve, the poor equipment situation in relation to 42 (East Lancashire) Division following its experience in France is well-documented. Indeed, Churchill's own figures for 'light machine guns' state that this division had a mere 40% of its establishment by September 1940 – a

³⁷⁷ *War Diaries*, Alanbrooke, entry for 31 August 1940.

³⁷⁸ Appendix II, Selection of Equipment Levels across XII Corps and the GHQ Reserve – [Source; Churchill, *Their Finest Hour*, State of Readiness – Infantry Divisions, as of 7 September 1940. p. 243].

³⁷⁹ WO 199/1650 Army Commanders Conference, Southern Command, Note summarizing the key points of a meeting held on 26 October 1940

staggering situation given its counter-attacking role. Within the other infantry divisions in the GHQ Reserve, the Bren gun situation is likely to have been much better, as indeed Churchill's figures (if correct) underline. 1 Canadian Division and 43 (Wessex) Division are shown by Churchill to have had 100% of their establishment of 'light machine guns', as is 3 Division (by September based in Somerset).³⁸⁰ Validating these figures is problematic for the reasons already stated, but they are likely to be accurate; 3 Division was a priority for re-equipment after it returned from Dunkirk as it was ear-marked to return to the continent and the Canadian force, along with 43 (Wessex) Division, were both ear-marked for the GHQ Reserve from an early stage and thus provisioned accordingly. In summary then, the troops that an invader would have been immediately confronted by in the Kent and Sussex countryside, before GHQ Reserve forces arrived, clearly had fewer of these crucial infantry weapons than they should have done and almost certainly less than that Churchill later claimed

A key component of infantry 'firepower' in 1940 remained the Vickers machine gun. These were deployed as 'machine gun battalions' of 48 guns, usually based on one battalion per infantry division. According to Lofting's comprehensive listing of the British Army's order of battle in the summer of 1940, there were some nineteen machine gun battalions in existence.³⁸¹ On that basis, the Home Forces had over 900 of these vital weapons as the invasion threat peaked. However in reality, the figure would have been less than that given that nine machine gun battalions went to France with (one assumes) a full establishment of around 432 Vickers guns. Thus, for example, the 2nd (Machine Gun) Battalion, the Middlesex Regiment was attached to 3 Division as it advanced into Louvain on 10 May 1940.³⁸² However, it is likely that very few of the Vickers machine guns that went to France made it back not least because the weapon, together with its tripod, was very heavy. This assumption is borne out by a report given to the War Cabinet on 29 August 1940 by the then Minister of Supply, Herbert Morrison, in which he stated that some 11,000 machine guns had been lost in France – some 8,000 of them Bren guns (as already noted).³⁸³ Thus, the Vickers Machine gun and the (lighter and more common) Lewis gun, must have accounted for the vast majority of the other 3,000 machine guns left behind. Based upon the unit war diaries of a sample of three out of the seven

³⁸⁰ Appendix II, Selection of Equipment Levels across XII Corps and the GHQ Reserve – [Source; Churchill, *Their Finest Hour*, State of Readiness – Infantry Divisions, as of 7 September 1940. p. 243].

³⁸¹ Lofting, *We Shall Fight Them*, Appendix I, British Army Order of Battle, pp. 187-261.

³⁸² IWM, Sound Archive, No. 6462/2, Private Leslie Kearnes, 2nd (Machine Gun) Battalion, Middlesex Regiment, 3 Division.

³⁸³ Dale Clarke, *Britain's Final Defence: Arming the Home Guard, 1940-1944*, (Stroud: The History Press, 2016), p. 29.

Machine Gun battalions sent to France, it is fair to conclude that few of the (over 400) Vickers guns that went to the continent returned to the UK. For instance, 8th (Machine Gun) Battalion, Middlesex Regiment, could only muster twelve of its Vickers guns on 29 June when it fought a last action at Mont des Chats before its men headed to the beaches and ‘made it home in small parties’.³⁸⁴ And 7th (Machine Gun) Battalion, Middlesex Regiment, arrived at La Panne on 1 June where, according to its war diary, ‘Trucks and equipment were destroyed’.

With few of these 400 Vickers guns returning, much would have depended upon whether this shortfall was rectified by accumulated factory production from May to August 1940 (something which the lack of inventory records makes it hard to determine with accuracy). Another source of the number of Vickers guns in the UK as the invasion crisis grew might have been Churchill’s tables of equipment levels for infantry divisions, shown in *Their Finest Hour*. Sadly, though, his figures make no mention of medium/heavy machine guns. In fact, the only credible data-point on Vickers guns in the summer of 1940 found in primary sources, is the same ammunition report compiled by Eastern Command that was referred to in the section on Bren guns.³⁸⁵ This clearly states that, at the end of July 1940, the six infantry divisions that made up Eastern Command (both north and south of the Thames estuary) had 261 of what are described as, ‘.303 medium machine guns’. Logically, these must have been Vickers machine guns and if so, 261 guns means the six divisions were almost at their correct establishment of 48 guns each. On this basis, despite the losses in France, the numbers of Vickers gun available to defend the UK in the summer of 1940 might well have been at the correct level - although whether 48 machine guns per division was sufficient to deal with an adversary like the German Army is open to question.

However, the number of Vickers machine guns is only one issue. Lofting’s listing of the order of battle also shows that the nineteen machine gun battalions were spread right around the UK – largely amongst those infantry divisions that were guarding the entire coast. They were thus not concentrated along the stretches of coastline where, by September 1940, an invasion was considered most likely – with nine of the machine gun battalions (according to Lofting) being attached to infantry divisions based north of a line drawn between Bristol and

³⁸⁴ TNA, WO 167/792, war diary of 7th Battalion, Middlesex Regiment, WO 167/793, war diary of 8th Battalion, Middlesex Regiment and WO 167/791, war diary of 2nd Battalion, Middlesex Battalion, France 1940.

³⁸⁵ TNA, WO 166/75, war diary of Eastern Command, Quartermaster, 1940, Report by Major-General B. O’Flaherty, i/c Administration, Eastern Command, 27 July 1940.

Norwich. Even more worrying is that only three of these machine gun battalions were formally allocated to XII Corps. Thus the 1st (Machine Gun) Battalion, Princess Louise's Kensington Regiment, was based in Kent under the auspices of 1 (London) Division and the 7th (Machine Gun) Battalion, the Devonshire Regiment, (had its four companies dug in between Eastbourne and Rye), having been attached to 45 (West Country) Division. Finally, the 5th (Machine Gun) Battalion, Argyle and Sutherland Regiment, was part of the so-called 'Broc Force' that Brooke sent to into Kent as the invasion crisis peaked and which was positioned (inland) around Ashford and Ham St. Assuming full establishment, this still means that a total of only 144 Vickers guns were covering the very extensive Kent and Sussex coastline, never mind inland 'strongpoints' and the vital key ports of Ramsgate, Dover, Folkstone and Newhaven - all of which we know were due to be assaulted according to the plans for Operation Sea Lion.³⁸⁶

But many of these guns were, with hindsight, in the wrong place. Thus, the war diary of the 1st Princess Louise's (Machine Gun) Battalion, Kensington Regiment reveals that most of its 48 Vickers guns were, at the request of 1 (London) Division, sited along the north Kent coast covering places like Sandwich, Thanet and the Isle of Sheppey which (as we now know) were not invasion targets.³⁸⁷ Thus, along the very many beaches and towns between Dover and Newhaven, Britain's defences of Vickers guns were (largely) the 48 machine guns of the 7th (Machine Gun) Battalion of the Devonshire Regiment. Their war diary reveals just how thin the coverage of its guns was. For example, its No. 5 Platoon, of A Company, was tasked with helping to defend the sea front at Bexhill upon Sea. Realistically, this could not have involved more than three to four weapons and their crews, to cover a vulnerable stretch of beaches – that we now know would have experienced landings had Operation Sea Lion been actioned. In addition, it needs to be noted that the GHQ Reserve in the summer of 1940 had only one machine gun Battalion attached to it – the 1st (Machine Gun) Battalion, Montreal Regiment, which was (not surprisingly) part of 1 Canadian Division.³⁸⁸ But, 42 (East Lancashire) Division and 43 (Wessex) Divisions had no machine gun battalions, despite being a counter-attacking force and neither did the two armoured divisions.³⁸⁹ Doubtless the nation's armoury of Vickers machine guns would have been moved to where their firepower was most needed in the event of an invasion, but that would have taken time to achieve.

³⁸⁶ Forczyk, *Operation Sea Lion*, British Dispositions in Kent and Sussex, 25 September 1940, p. 255.

³⁸⁷ TNA, WO 166/4350, war diary of 1st Princess Louise's Kensington Regiment, August 1940.

³⁸⁸ Lofting, *We Shall Fight Them*, Appendix 1, British Army Order of Battle, pp. 185-261.

³⁸⁹ *Ibid.*

Also, formidable weapon though the Vickers machine gun still was in 1940, it had been shown in France to deliver much less firepower than its German equivalent. Word of this issue had clearly spread across the Home Forces by July 1940, when William Tooke, an NCO in the 7th (Machine Gun) Battalion, The Devonshire Regiment, found himself manning a Vickers inside a pillbox on Worthing beach. In his later testimony he is clear that, ‘It wasn’t as rapid as the German [M34] Spandau’.³⁹⁰ But the weapon also had other disadvantages, not least its considerable weight and thus lack of manoeuvrability. ‘You had to be pretty fit to operate it,’ Tooke recalls. Also, being water-cooled it needed a regular supply of cold water – which could be an issue in the heat of battle. Moreover, according to Harry Nolan of the 4th (Machine Gun) Battalion who fought in France with the Cheshire Regiment, the emissions of steam from its barrel, were spotted by Luftwaffe aircraft during one engagement, leading to attacks from above.³⁹¹ Furthermore, in 1940, the gun’s webbing belt had to be laboriously filled by hand and would jam unless fed into the breach completely straight – a significant issue, although one that was being tackled by the introduction of disposable papier-maché belts at around this time.³⁹²

Despite these drawbacks, though, the Vickers would have been a vital weapon defending the beaches and key ports of Kent and Sussex had German forces landed and neither XII Corps nor the GHQ Reserve had enough of them. By contrast, to the 48 Vickers guns that each British infantry division should have had in 1940, German infantry divisions had an establishment of 535 medium and heavy machine guns, usually the M34 weapon with its very high rate of fire. Like the Vickers, this was a medium machine gun, but it was also classified as a ‘heavy’ weapon when mounted on a tripod.³⁹³ In summary then, just two Vickers machine gun battalions with some 48 guns each were guarding the long coastline of Kent and Sussex in September 1940. What this meant is well demonstrated by the testimony of Sydney Smith, a gunner with the Princess Louise (Machine Gun) Battalion, Kensington Regiment, that was guarding Hythe beach just south of Folkestone. In the summer of 1940, he found himself manning a single Vickers gun (surrounded by sandbags and some netting) on ‘The Roughs’ over-looking Hythe beach, which he described as ‘an ideal place for enemy invasion craft’.³⁹⁴

³⁹⁰ IWM, Sound Archive 18213/1, William Tooke, NCO, 7th (Machine Gun) Battalion.

³⁹¹ IMW, Sound Archive, 17928/1, Harry Nolan, Private, 4th (Machine Gun) Battalion, Cheshire Regiment, France, 1940.

³⁹² Ibid.

³⁹³ Werner Haupt, *Die deutschen Infanterie-Divisionen 1–50* (Eggolsheim: Nebel-Verlag, 2005), p. 191.

³⁹⁴ David Collyer, *Shellfire Memories: Some Reminiscences of East Kent, 1938 to 1945, Volume II*, (North Kent Books), p.32, [copy contained within IWM Document Archive, No. 27241, Major Geoffrey Bird].

In addition to the troops on guard, the beach would have both mined and covered with danert wire by then and artillery to the rear would doubtless also have 'sighted' the beach as far as was possible. But, if Sydney Smith's account is correct, a single Vickers machine gun on Hythe beach appears a thin defence indeed for such an obvious landing zone.

Neither secondary nor primary sources have revealed robust figures for how many of the Boyes anti-tank rifle were available across XII Corps and the GHQ Reserve by September 1940. But this was of less consequence given that the weapon had only managed to penetrate the armour of the numerous lighter German tanks in France -and even then not consistently. In the words of Herbert Harwood of the 4th Battalion, Royal West Kent Regiment, 'on reflection it was a waste of time'.³⁹⁵ This sentiment is common in many testimonies, so Harwood's comment is clearly valid and yet there is evidence that this deficiency was not openly admitted. For instance, within the war diary of the 5th Battalion, Lancashire Fusiliers, part of 125 Brigade in 42 (East Lancashire) Division, there is a note dated 7 July, formally refuting that the Boyes anti-tank rifle was defective against German tanks and making it clear that calling its capability into question was a disciplinary offence.³⁹⁶ Furthermore, it is surprising that Brooke was still extolling the virtues of the Boyes anti-tank rifle as late as January 1941. In reply to a note from Churchill asking about planning for dealing with German tanks roaming the English countryside, Brooke stated that any German amphibious tanks that came ashore would most likely not be heavily-armoured and thus would be, 'vulnerable to the Boyes weapon'.³⁹⁷ However, the Army's experience in France when using the anti-tank rifle, calls his opinion into question – or, quite possibly, demonstrates that Brooke knew only too well that criticism of the anti-tank rifle was not something that Churchill wanted to hear.

In relation to the two-inch and three-inch mortar, a key part of the firepower of the standard British infantry battalion at the time, a similar picture of shortages emerges. George Ledger, a captain with the 8th Battalion, Durham Light Infantry, stationed near Bridport for instance bemoans in his testimony that new two-inch mortars took time to arrive to replace the equipment they had lost in France.³⁹⁸ And the Australian Imperial Force (by September 1940 part of the GHQ Reserve), only received its correct establishment of three-inch mortars that

³⁹⁵ IWM, Sound Archive 20769/3, Herbert Harwood, Private, 4th Battalion, Royal West Kent Regiment.

³⁹⁶ TNA, WO166/4407, war diary of 5th Battalion, Lancashire Fusiliers, Battalion Order, 7 July 1940.

³⁹⁷ TNA, CAB 120/438, War Cabinet, Home Defence, memo from Brooke to Churchill entitled; *Military Invasion*, dated 2 January 1941.

³⁹⁸ IWM, Sound Archive, No. 16722/11, George Ledger, Captain, 8th Battalion, Durham Light Infantry.

month.³⁹⁹ Indeed, according to a meeting of the Commander-in-Chief Home Forces Conference in December 1940, the Home Forces overall still had only 63% of the three-inch mortars it should have had by then.⁴⁰⁰ This situation is borne out by a report back in June 1940 from the Minister of Supply to the War Cabinet: Defence (Supply) Committee, which stated that the Army had just 261 3-inch mortars whereas it should have had 2,557.⁴⁰¹ Given that estimated forward production was forecast to only reach 400 mortars per month by August 1940, the lack of 3 inch mortars was well short of being addressed by the time the invasion crisis peaked. Furthermore, given that 106,000 3-inch mortar rounds were lost in France, it is not surprising that the same report states that in addition to only have 261 of these weapons, the Army also had just 200 rounds for each weapon against an establishment of 300 rounds per weapon.⁴⁰² It is thus unlikely that this ammunition issue could have been fully resolved just a few months later when three-inch mortars, in instances where shortages of artillery persisted, were tasked with playing a key role in stopping landing craft reaching the beaches – according to William Watson, a major in the 6th Durham Light Infantry, who was dug in on Chesil Beach in Dorset.⁴⁰³

It was an added concern because only the 3-inch mortar was considered ‘fit for purpose’ by many after the experience in France. In the words of Brigadier Alexander Stanier, from the 1st Battalion, Welsh Guards, who had been evacuated from Boulogne in May 1940, ‘We had 2-inch mortars; they were supposed to be marvelous things but I don’t think they proved to be anything at all’.⁴⁰⁴ Furthermore, the 5th Battalion, Border Regiment, part of 42 (East Lancashire) Division, which had been moved down to Maidenhead on 12 September, specifically to be a counter-attacking force in the event of an invasion, did not receive its correct establishment of two and particularly three-inch mortars, until 20 September.⁴⁰⁵ This is doubtless typical of other formations in both the GHQ Reserve and XII Corps, despite a key conclusion of the Bartholomew Committee being that British infantry battalions had lacked

³⁹⁹ TNA, WO199/1614, Australian Imperial Force, General Staff papers, June to Sept 1940.

⁴⁰⁰ TNA, WO199/3056, Notes on Equipment and Ammunition, Minutes of Commander in Chief Home Forces Conference, December 1940.

⁴⁰¹ TNA, CAB 70/2, War Cabinet: Defence Committee (Supply). Minutes from June to December 1940 (Papers 1 to 106), Report by Minister of Supply entitled; *Production of 2 -inch and 3-inch Mortars*, dated 21 June 1940.

⁴⁰² *Ibid.*

⁴⁰³ IWM, Sound Archive, No. 10420/11, William Watson, Officer, 6th Battalion, Durham Light Infantry.

⁴⁰⁴ IWM, Sound Archive, No. 7175/5, Alexander Stanier, Officer, 1st Battalion, Welsh Guards.

⁴⁰⁵ TNA WO166/4155, war diary of 5th Battalion, Border Regiment, September 1940.

firepower in France and that an increased establishment of three-inch mortars was required.⁴⁰⁶ The Committee's findings may well have been influenced by the strong performance of the German Army's own 8 cm mortar in France. For example, Andrew Jones, an NCO with the Queen's Regiment, recalls how the Germans they 'made excellent use of mortar fire' when they came face to face with them on the River Escaut and that 'we met mortar fire wherever we went'.⁴⁰⁷ In summary then, the fact that some of infantry divisions within XII Corps and the GHQ Reserve were short of their establishment of thirty-six 3-inch mortars by mid-September, had a tangible impact upon their 'fighting power'.

Artillery weapons

Field artillery would also have been vital for 'fighting power', had XII Corps and the GHQ Reserve been called upon to repel an invader and yet this also remained in short supply as the invasion crisis loomed. Despite factories turning out an average of around 75 of the new 25-pounder field gun every month in the summer of 1940, only around fifty of these were allocated to the Home Forces and there were also shortages of 25-pounder amour-piercing ammunition. For example, at the end of July, XII Corps in Kent and Sussex, reported that it only had 225 high explosive 25-pounder rounds and even fewer of the amour-piercing variety.⁴⁰⁸ Doubtless this situation had improved three months later (and their war diary does not refer to the issue again), but any shortages of artillery ammunition in XII Corps would have had huge implications had an invasion materialised. Also, each division across the Home Forces should have had an establishment of seventy-two field guns, but Forczyk's conclusion is that by September, most divisions would have had no more than a battery or two of the new 25-pounder, the rest of the establishment being made up of older field pieces, often of First World War vintage. This is partly borne out by the experience within 42 (East Lancashire) Division, within IV Corps of the GHQ Reserve, given that their first six 25-pounders did not arrive until late July 1940. Interestingly these new guns were allocated, two to a battery, to be used in an anti-tank role given the shortage of proper anti-tank guns. Furthermore, according to Rex Yeomans, an NCO within the 2/3rd Field Regiment of the Australian Imperial Force (and part of VII Corps within the GHQ Reserve), they only received their 25-pounders just before they departed for Egypt at the very end of 1940.⁴⁰⁹ Therefore, if this was indeed true, had the

⁴⁰⁶ TNA, CAB/106, *Final Report of the Bartholomew Committee on Lessons to be Learnt from the Operations in Flanders*, June 1940–October 1940.

⁴⁰⁷ IWM Sound Archive, No. 14925/1, Andrew Jones, NCO, 5th Battalion, Queen's Regiment.

⁴⁰⁸ TNA, WO166/345, war diary of Headquarters A/Q, XII Corps, July 1940.

⁴⁰⁹ IWM, Sound Archive, No. 27339/3, Rex Yeomans, NCO, 2/3rd Field Regiment, Australian Imperial Force.

Australians been required to counter-attack an invading enemy in September, they would only have had a few 4.5inch howitzers from the First World War.

Likewise, the entire 45 (West Country) Division, on the front-line in Sussex, only had twenty-one vintage 75mm field guns as late as 17 August. Twelve more of these arrived by 25 August and although the situation had improved by September, its war diary still recorded that the division only had sixty-six guns (not seventy-two) and that these were of a 'very assorted variety'⁴¹⁰ Indeed, no mention is made of them having received any 25-pounders at all. It was only by adding in these older weapons that, by December 1940, overall artillery numbers could be announced at one of General Sir Alan Brooke's Home Forces meetings as being at 83% of establishment.⁴¹¹ However, even with more modern artillery the situation still appears bleak, at least according to Forczyk. He concludes that British division-level artillery, comprising the new 25-pounder gun and the older 18-pounder weapon, still lacked firepower when compared to the modern 10.5cm and 15cm howitzers that the Germans would have brought with them.⁴¹² Crucially then, the forces of XII Corps and the GHQ Reserve not only lacked modern field artillery pieces, but would have also wanted for greater overall firepower than even they provided, in the event of an invasion. It is also worth noting that German intelligence was aware of the British Army's shortage of artillery in the summer of 1940. A study commissioned by the Cabinet Office in 1950 revealed a paper from the Wehrmacht's General Staff, dated 15 August 1940, stating that some twenty of British infantry divisions in the UK had only half their establishment of field guns.⁴¹³

The situation with anti-tank guns was not helped by the loss of 509 2-pounder (37mm) weapons in France. Production of around 175 anti-tank guns per month between July and September 1940 was insufficient to replenish these losses and few Home Forces divisions thus had the correct establishment of forty-eight of these guns by the time the invasion crisis peaked.⁴¹⁴ Indeed, as late as December 1940, anti-tank guns were still only at 48% of their desired establishment overall, a situation partly caused by the fact that the 2-pounder anti-tank gun was the same weapon that was fitted to most tanks at the time, which were seen as the

⁴¹⁰ TNA, WO166/539, war diary of Headquarters Royal Artillery, 45 (West Country) Division, August to September 1940.

⁴¹¹ TNA, WO199/3056, Notes on Equipment and Ammunition, Minutes of Commander in Chief Home Forces Conference, December 1940.

⁴¹² Forczyk, *Operation Sea Lion*, p.236.

⁴¹³ TNA, CAB 101/347, German Military Preparations for Operation Sea Lion; German Estimate of the British Army, July to December 1940, Paper Entitled; *Sea Lion, 1940, German Estimates of the British Army, July to September 1940*, Section 4 of the Resumé.

⁴¹⁴ Forczyk, *Operation Sea Lion*, p.23.

production priority.⁴¹⁵ Thus, even 1 Armoured Division, despite its key counter-attacking role within the GHQ Reserve, still had only twenty-four 2-pounder anti-tank guns (or 50% of its establishment) as late as October 1940.⁴¹⁶ And down in Kent and Sussex, 1 (London) Division and 45 (West Country) Division, had only twenty-two 2-pounder anti-tank guns between them when they should have had overall figure of 96, as the invasion crisis reached a climax.⁴¹⁷ The implications of this deficit, had German landings taken place in line with the plans laid out in Operation Sea Lion, cannot be over-stated – particularly given that the situation only improved marginally when Brooke dispatched 2 New Zealand Expeditionary Force (in reality a two rather than a three brigade force) into Kent in early September to bolster its defences. This formation only brought with it about ten 2-pounder anti-tank guns, instead of the 32 or so it should have had (assuming an establishment of two thirds of the normal figure).⁴¹⁸ Indeed, Thomas Beel, in addition to his testimony about the lack of Bren guns, recalls that his (New Zealand) battalion had no 2-pounder guns at all when it arrived in Kent.⁴¹⁹ Even by April 1941 the issue of insufficient 2-pounder guns had not gone away, according to comments made by General Sir Alan Brooke in his diary after having witnessed a demonstration of the new (but still delayed) 6-pounder anti-tank gun at Bisley.⁴²⁰

But the capability of the 2-pounder anti-tank gun was also an issue in 1940. For instance, Basil Liddell Hart was adamant that 48 anti-tank guns for a division simply was not enough firepower, based upon the Army's experience in France. His subsequent paper in October 1940, concluded that 64 anti-tank guns were now required to fight an enemy with mobile armour.⁴²¹ Furthermore, the 2-pounder anti-tank gun had not performed all that well in France against heavier panzers. James Sudbury, a gunner with the 13th Anti-Tank Regiment in France quickly realised that his 2-pounder gun could not penetrate the frontal armour of the better-armoured German tanks.⁴²² And George Teal, a signaller in HQ Company in the 1st Battalion, Coldstream Guards, who first came up against the German Army in the bitter fighting around Louvain

⁴¹⁵ TNA, WO199/3056, Notes on Equipment and Ammunition, Minutes of Commander in Chief Home Forces Conference, December 1940.

⁴¹⁶ TNA, WO 166/797, war diary of 1 Armoured Division, General Staff, June 1940 – June 1941, Operation Instruction No.3.

⁴¹⁷ TNA, 166/1639, war diary of 67 Anti-Tank Regiment, September 1939-December 1941 and WO 166/1641, war diary of 69 Anti-Tank Regiment, August 1939-December 1941.

⁴¹⁸ TNA, WO 179/11, war diary of Headquarters Canadian Corps, General Staff, July to December 1940, VII Corps Order of Battle, 3 September 1940.

⁴¹⁹ IWM Sound Archive, No. 13110/1, Thomas Beel, Private, 20th Battalion, 4 New Zealand Infantry Brigade.

⁴²⁰ *War Diaries*, Alanbrooke, entry for 29 April 1941.

⁴²¹ LHCMA, Liddell Hart Papers – 11/1940/61, *Revised Organisation of the Infantry Division*, October 1940.

⁴²² IWM, Sound Archive, No. 12759/1, James Sudbury, Private, 13th Anti-Tank Regiment, Royal Artillery.

shortly after 10 May reports that, ‘You could spit at a German tank and do more damage than a 2-pounder could.’⁴²³ Finally, Robert Wigham, a gunner with A Battery, 125th Anti-Tank Regiment based near Norwich with 18 Division in September 1940 was only too well aware that his 2-pounder gun could not penetrate the frontal armour of many German tanks. ‘They were pea-shooters really’, he recalls, ‘the drill was to let the tank get past you and hit it in the backside’.⁴²⁴ Some also questioned the weapon’s accuracy and durability. 223 Anti-Tank Battery (part of 31 Independent Brigade within the GHQ Reserve) had been rushed down from Harpenden, along with the rest of the brigade to reinforce the Military Canal around Hythe in September 1940. It finally got to practice on an anti-tank range at Lydd on 28 September. Over two days, 223 Battery fired repeatedly at a crossing target, during which time the firing levers on two of the four 2-pounders they had brought with them broke - something which might have been down to poor training. Crucially though, when the scores were added up, they found they had only hit the target once every four shots.⁴²⁵ And even the battle-hardened 56th Anti-Tank Regiment, which had seen heavy fighting in France within 42 (East Lancashire) Division, could only hit the target 65% of the time when they fired 80 rounds on a training range near Maidenhead on 24 September.⁴²⁶ Ammunition for these vital guns was also scarce, even in Kent and Sussex. XII Corps reported, at the end of July, that it only had 238 2-pounder anti-tank rounds and although the situation had doubtless improved by September, this issue would most likely have re-surfaced across XII, VII and IV Corps had German tanks arrived on British soil and had a prolonged battle ensued.⁴²⁷

One of the key secondary sources for the overall number of 2-pounder guns in the summer of 1940 remains the numbers stated by Churchill in *Their Finest Hour*.⁴²⁸ Assuming these are accurate, they show that across the six infantry divisions within Eastern Command (which included XII Corps in Kent and Sussex), five of them had only about 20% to 25% of their establishment of these weapons. Given that these formations were guarding what were perceived to be the most vulnerable coastline (between the Wash and Newhaven) this is worrying indeed. What is also concerning, when assessing fighting capability’ within XII Corps, is the fact that one of Eastern Command’s divisions, the 52 (Lowland) Division (which

⁴²³ IWM, Sound Archive, No. 18698/3, George Teal, Signaller, 1st Battalion, Coldstream Guards.

⁴²⁴ IWM, Sound Archive, No. 29238/3, Robert Wigham, Gunner, 125th Anti-Tank Regiment, Royal Artillery.

⁴²⁵ TNA, WO166/1686, war diary of 223 Anti-Tank Battery, 31st Independent Brigade, September 1940.

⁴²⁶ TNA, WO166/1629, war diary of 56th Anti-Tank Regiment, September 1940.

⁴²⁷ TNA, WO166/345, war diary of Headquarters A/Q, XII Corps, July 1940.

⁴²⁸ Churchill, *Their Finest Hour*, State of Readiness of Infantry Divisions as of 31 August 1940, p. 243

had briefly gone to France as part of the second British Expeditionary Force and was now based in Norfolk), had a full establishment of forty-eight 2 pounder anti-tank guns.⁴²⁹ Indeed, so flush was it with them that, on 2 July, one of its four batteries (215 Battery) was transferred to 18 Division in Essex to help bring up their anti-tank gun numbers. Surely it would have made military sense to have moved some of these (easily-transportable) weapons down into the south-east as September approached? But, as Chapter Three will illustrate, it was Churchill himself who was one of the most vocal advocates of the notion that Britain's east coast remained as likely a target for German landings as the crisis grew as the beaches of Kent and Sussex – a view that may have made it difficult for Brooke to allocate the country's modest number of 2-pounder anti-tank guns entirely as he would have liked. No mention of this dilemma is made in Brooke's diaries or in the war diary of Home Forces Headquarters, but it is surprising given the proven shortages of this weapon, that more of them were not sitting in the south-east by the time the threat of invasion was considered imminent. Despite the growing obsolescence of this weapon, the failure to do undoubtedly reduced the fighting power of those forces guarding the south-east.

Air defence

Any study of 'fighting capability' of XII Corps and the GHQ Reserve from an equipment perspective would be incomplete without an assessment of the ability of these formations to defend themselves from the air in the event of an invasion. For not only would the Luftwaffe been very active in support of the German Army over the invasion beaches and across their immediate hinterland, but it would most likely have devoted considerable efforts to disrupt the arrival of GHQ Reserve forces into Kent and Sussex. Indeed, this latter point was a finding of the Cabinet Office's investigation (in the immediate aftermath of the war) into German invasion plans, which revealed just how much effort the Luftwaffe had planned to put into stopping mobile re-enforcements from coming into the south-east, had Operation Sea Lion been actioned.⁴³⁰ To this end it is also worth underlining that German military intelligence appears to have been very well aware throughout the summer of 1940 of the location of key armoured British formations – hence its low-level raids on tanks parked at bases in the vicinity of Salisbury Plain (described later in this study). The ability to deal with this type of Luftwaffe

⁴²⁹ TNA, WO 166/1627, war diary of 54 Anti-Tank Regiment 1940-41, (attached to 52 (Lowland) Division.

⁴³⁰ TNA, CAB 101/347, German Military Preparations for Operation Sea Lion; German Estimate of the British Army, July to December 1940, Paper Entitled; *Sea Lion, 1940, German Estimates of the British Army, July to September 1940*, Documentary Evidence – 16 Army Intelligence Report, 16 Army File No. 14/558 (3), Appendix 1 to 16 Army's Preliminary Instruction for 'Sea Lion', 9 September 1940.

interdiction would thus have been vital if an invasion had taken place. Furthermore, the British Army in France in May 1940 had not only criticised the lack of ground support it received from the Air Force during the conflict and particularly at Dunkirk. The lack of anti-aircraft guns had also been seen as having inhibited the Army's performance. For example, Major Charles Boycott of the 1st Battalion, Suffolk Regiment, is clear that it was a critical issue. His (regular) formation advanced up to Louvain, along with the rest of 3 Division (shortly after 10 May 1940), for what would turn out to be not just five days of hard fighting, but one of the few times that the Army fought a sustained action against the Wehrmacht, before the long fighting retreat to the coast began. According to Boycott, the lack of light anti-aircraft support in the face of continuous low-level Luftwaffe attacks, throughout the Louvain engagement, put his battalion at a distinct disadvantage.⁴³¹ Thus it is important to now assess the degree to which the British Army and in particular the formations of the GHQ Reserve and XII Corps had the air defence capability it would have needed in the event of enemy landings.

As with so many other areas of equipment, the picture was mixed in the summer of 1940 and from the Army's perspective the situation was made more challenging because Anti-Aircraft Command and Fighter Command were jointly responsible for the Air Defence of Great Britain.⁴³² Furthermore, despite containing over 155,000 (mainly territorial) soldiers by July 1940, Anti-Aircraft Command still only had 1,200 heavy anti-aircraft guns of either 3.7 inch calibre or greater – despite this amounting to just over half of the agreed establishment. And in any event, these weapons were only suitable for use against enemy bombers at altitude and were thus positioned to defend cities, factories and ports etc. Anti-Aircraft Command also had some 540 light anti-aircraft guns by July 1940, of which the best were the 273 40mm Bofors guns – most of which were deployed to protect airfields and naval bases from low-level attack.⁴³³ In addition to this, Anti-Aircraft Command also contained many other light anti-aircraft units employing some 3,000 machine guns mounted for air defence and categorised as 'AAMG's' – anti-aircraft machine guns⁴³⁴ Despite this it was widely accepted that there was a grave shortage of light anti-aircraft weapons, leading to the subject being debated by the Chiefs of Staff Committee on numerous occasions that summer and the Commander-in-Chief

⁴³¹ IWM, Sound Archive, No.18734/1, Charles Boycott, Major, 1st Battalion, Suffolk Regiment, 8 Brigade, 3 Division.

⁴³² For more information on Anti-Aircraft Command in 1940, see; Lieutenant-General, Sir Frederick Pile, General Officer Commanding-in-Chief, Anti-Aircraft Command, 'The Anti-Aircraft Defence of the United Kingdom, from 28 July 1939 to 15 April 1945', *The London Gazette*, 18 December 1947, pp. 5973-5994.

⁴³³ *Ibid.*, p. 5976.

⁴³⁴ Lofting, *We Shall fight Them*, Appendix 3.

of Anti-Aircraft Command, Lieutenant-General Sir Timothy Pile admitting in August 1940 that 'Light anti-aircraft guns are still very scarce and cannot be at every likely spot where an invasion might take place.'⁴³⁵ But the key point is that few of these light anti-aircraft weapons located around the country in September 1940, be they the 500 or so 40mm Bofors by now available or the many batteries of machine guns mounted for air defence, were 'owned' by the Home Forces and even if they were allocated to it they were subject to being redeployed to cover other identified priorities.⁴³⁶ The Army was therefore in danger of being unable to defend itself from above in the event of enemy landings, a situation that was a source of considerable frustration for Brooke.

Many AAMG regiments or batteries were supposed to be mobile and thus relatively easy to divert towards helping the Army to fend off Luftwaffe attacks in the event of an invasion but, in truth, this was often not quite the case. For example, one Royal Artillery officer, Major McSwinney, who had led a heavy anti-aircraft battery in France, found his unit amalgamated into the 1st Light Anti-Aircraft Regiment upon his return to the UK and he himself was subsequently put in charge of some AAMG batteries of static Vickers machine guns. These, he recalled in his diary, were supposed to be mobile, but during the remainder of 1940, they were given the job of guarding Bomber Command HQ - which, according to him, 'was situated under twenty feet of concrete and so didn't need guarding'. The key point is that not only did his guns stay in one place for a prolonged period of time, but his testimony also implies that if they had been moved it would have been to guard another priority Royal Air Force site, rather than to support mobile counter-attacking troops heading south into Kent and Sussex.⁴³⁷ Clearly some of the many AAMG batteries up and down the country would have been attached to the Army in the event of an invasion, for this is certainly what had happened in France. For instance, John Almond, a gunner with the 53rd Light Anti-Aircraft Regiment recalls that his regiment was attached to an infantry division in France and that his AAMG battery had Lewis guns on tripods. That said, as with the Bofors guns, of the large number of AAMG batteries around the country (usually components of LAA Regiments), very few were formally attached

⁴³⁵ TNA, WO 216/117, Lieutenant-General Sir T. Pile, Commander-in-Chief Anti-Aircraft Command: demi-official correspondence, August 1940 to February 1944, report entitled; *A Tank Army for Great Britain*, dated 8 August 1940, p. 2.

⁴³⁶ TNA, CAB 80/16/3, War Cabinet; Chiefs of Staff Committee, Memoranda 601-650, Report; C.O.S. (40) 625, *Production of Anti-Aircraft Weapons; Requirements Home and Abroad*, 14 August 1940.

⁴³⁷ IWM, Document Archive, No. 7004, Diary of Major McSwinney, Royal Artillery.

to XII Corps or the GHQ Reserve in September 1940.⁴³⁸ Thus, the lack of anti-aircraft support was a very real issue for those forces tasked with repelling an invasion.

It should not be forgotten that the various Vickers machine-gun battalions within the Army were, at the time, (at least partly) familiar with using their weapons in an anti-aircraft role – as had been demonstrated in France. Thus, when Leslie Kearnes, (a private in the 2nd Machine Gun Battalion, Middlesex Regiment) and his platoon of four Vickers .303 machine guns, advanced into Louvain, (along with much of 3 Division) shortly after 10 May, it was standard practice (he claims) for one of their Vickers guns to always be fitted for anti-aircraft duty. This involved turning ‘the tripod around...so the gun could come vertical...and travers up and down’.⁴³⁹ That said, the war diary of 2nd Machine Gun Battalion, Middlesex Regiment, reveals that only one Stuka was claimed as a ‘kill’ during the Louvain engagement (having been shot down by a gun from B Company on 11 May).⁴⁴⁰ An analysis of the war diaries of two further Vickers machine gun battalions in France reveals no further instances of Luftwaffe ‘kills’ claimed. Nor, it seems, were many Luftwaffe planes shot down by Vickers machine guns during the Battle of Britain. Looking at the war diaries of the two principal machine gun battalions in Kent and Sussex that summer, the only instance of a recorded ‘kill’ was in North Kent on 15 September 1940, when a gun from D Company, 1st (Machine Gun) Battalion, Princess Louise’s Kensington Regiment (and located at Prince’s Golf Club), managed to bring down a Dornier 17 that had just attacked RAF Manston.⁴⁴¹ In summary then, Vickers guns would have most useful when pointed at German forces coming ashore, rather than at the sky. Thus, any notion that the Army could protect itself from Luftwaffe tactical interventions by means of its own medium machine guns, seems ambitious.

Furthermore, the same report for the Chiefs of Staff Committee in August 1940 also concluded that over 4,000 light anti-aircraft weapons would be required to equip all 36 divisions of the field Army, plus protect factories and also guard the increasing number of so-called ‘vulnerable points’, e.g., airfields (which alone required over 1,800 guns of all sizes to

⁴³⁸ Lofting, *We Shall fight Them*, Appendix 3, pp. 284-303.

⁴³⁹ IWM, Sound Archive, No. 6462/2, Private Leslie Kearnes, 2nd (Machine Gun) Battalion, Middlesex Regiment, 3 Division.

⁴⁴⁰ TNA, WO 167/791, war diary of 2nd (Machine Gun) Battalion, Middlesex Regiment, entry for 11 May 1940.

⁴⁴¹ TNA, 166/4350, war diary of 1st (Machine Gun) Battalion, Princess Louise’s Kensington Regiment, entry for 15 September 1940.

protect them).⁴⁴² With the Battle of Britain now underway and with Fighter Command's airfields in the South -East often under daily assault the compelling need for light anti-aircraft guns and 40mm Bofors guns to protect them hard to question. It was against this background that the Chiefs of Staff Committee had to allocate the 120 Bofors guns could be made per month by the late summer of 1940 and it subsequently concluded that of the next six month's production (from September 1940 to February 1941), only 394 of these weapons could be allocated to the Home Forces.⁴⁴³ And this was despite Brooke demanding, in August 1940, that two anti-aircraft regiments per Army corps was the minimum required – something he was well-placed to opine upon having briefly led Anti-Aircraft Command only eighteen months previously.⁴⁴⁴

But the key point is that, as the invasion crisis peaked in early September 1940, the entire field army in the UK possessed only around 48 of the precious Bofors 40mm with which to defend its troops against Luftwaffe assault – and even these were ultimately 'owned' by Anti-Aircraft Command not the Home Forces and so could in theory be re-deployed elsewhere. How many of these were allocated to XII Corps and the GHQ Reserve is hard to determine with any accuracy – but around 25% of them might be a fair assumption based upon the key role that these formations would have had in the event of an invasion. In any event, just how thinly-spread these weapons were is demonstrated by the fact that, within 1 Armoured Division in Surrey in the summer of 1940, the 20th Light Anti-Aircraft Regiment's two batteries of light anti-aircraft guns, contained just two Bofors guns - according to one of its officers, Philip Daniel.⁴⁴⁵ And as he relates, these were only used for training purposes and the rest of their equipment was made up of an assortment of First World War weapons. 'My [anti-aircraft] regiment had next to nothing', he concludes. Thus, in terms of modern 40mm light anti-aircraft weapons, the situation for the country's counter-attacking forces was very worrying.

It did improve modestly when, on 11 Sept, Dill persuaded the War Cabinet to allocate a further thirty-six Bofors 40mm guns to the Kent defences. These were to come from Fighter Command and were intended to protect troops between North Foreland and Dungeness against

⁴⁴² TNA, CAB 80/16/3, War Cabinet; Chiefs of Staff Committee, Memoranda 601-650, Report; C.O.S. (40) 625, *Production of Anti-Aircraft Weapons; Requirements Home and Abroad*, 14 August 1940.

⁴⁴³ TNA, CAB 80/17/3, War Cabinet; Chiefs of Staff Committee, Memoranda 651-700, C.O.S. (40) 692, Memorandum by the Vice Chief of the Imperial General Staff, *Allocation of Anti-Aircraft Equipments*, 31 August 1940.

⁴⁴⁴ TNA, CAB 79/5/72, War Cabinet, Chief of Staff's Committee minutes, 5 August 1940.

⁴⁴⁵ IWM, Sound Archive, No. 19670/1, Philip Daniel, Officer, 20th Light Anti-Aircraft Regiment.

low-flying aircraft. However, Dowding subsequently made a formal protest about this decision, as did the Royal Navy, who were concerned that it had resulted in 12 Bofors being removed from the port of Harwich, which were there to protect two flotillas of destroyers, a number of corvettes, two flotillas of MTB's and some submarines⁴⁴⁶ It is therefore unclear from either primary or secondary sources, whether any of promised extra thirty-six 40mm Bofors guns were ever delivered to the Home Forces in time to make a difference had an invasion taken place in mid to late September 1940. It seems unlikely given that, in December of 1940, at meeting of the Chiefs of Staff Committee, Brooke complained again about the allocation of light anti-aircraft guns to the Home Forces. Specifically, he stated that they still were not getting the eight new Bofors 40mm guns per month they had been allocated from factory production – indeed in the previous three months they had received just two. He then stressed again how important AA guns were to his mobile divisions and particularly to his armoured divisions, if they were to play their part in repelling an invasion. According to the minutes of this meeting, The Chief of the Imperial General Staff, 'endorsed this strongly'.⁴⁴⁷

But the inescapable fact is that, in September 1940, XII Corps and the GHQ Reserve had very few modern light anti-aircraft guns under their auspices, especially 40mm Bofors guns. Thus, for many of their formations the only source of anti-aircraft support would have been from their own automatic weapons, pointed skywards. For instance, Henry Willmott, a soldier from 43 (Wessex) Division (within the GHQ Reserve), recalls that in August 1940 as an NCO in an (Army) anti-aircraft platoon stationed in St Albans and then in Dover he provided air cover for his battalion's route marches and exercises, armed only with a single Bren gun attached to the roof of a 15 CWT truck. 'I was even issued with special sunglasses to protect my eyes', he recalls.⁴⁴⁸ Even a single Bren gun could be effective against ultra-low-level attacks, given that all aircraft at that time were vulnerable to just one .303inch or 7.62cm round puncturing a glycol tank - thus causing an engine to seize up for lack of coolant within a few minutes. But these were lucky shots when they occurred and generally ground-fire from infantry light weapons was a rare cause of aircraft being shot down, even at very low-level – as those who had fought in France could testify. It seems, though, that this reality took some

⁴⁴⁶ TNA, CAB 80/19/3, War Cabinet, Chiefs of Staff Committee, Memorandum 751-800, C.O.S (40) 786, Memorandum by the Sub-Committee on the Allocation of Active Air Defences; *Withdrawal of Bofors Guns to Provide Light A.A. Defences for the Home Forces*, 27 September 1940.

⁴⁴⁷ TNA, CAB 79/8/36, Minutes of War Cabinet, Chiefs of Staff Committee, 23 December 1940.

⁴⁴⁸ IWM, Sound Archive, No. 22666/1, Henry Willmott, NCO, AA Platoon, 4th Battalion, Dorset Regiment, 130 Brigade, 43 (Wessex) Division.

time to permeate through to those forces that had remained in the UK, some of whom may have assumed (or been taught) that small arms fire could achieve more against an air attack. Thus, when the 76th Medium Regiment, Royal Artillery, undertook an anti-invasion exercise in early June 1940, the exercise's background scenario, as compiled by its commanding officer Lieutenant-Colonel A. Munro, stated that following an enemy invasion the defenders, using light machine guns, 'have achieved considerable success against low-flying aircraft'.⁴⁴⁹ On the basis of the retreat to Dunkirk, this was an ambitious scenario indeed.

However, being hit in an engine, a fuel tank, or the hydraulic system by an exploding 40mm round from a Bofors gun, or from the copious numbers of mobile 20mm anti-aircraft guns which the Wehrmacht had in relative abundance in France, was usually fatal— as evidenced by the many allied planes shot down as they attacked bridges over the Meuse and the Albert Canal in May 1940. That said, it is important to note that hitting a fast-moving aircraft at low-level with a Bofors gun was not easy in 1940, even with the help of the so-called 'Kerrison Predictor', a mechanised analogue computer designed in 1937. The system was very complex to use for guns that were not in static emplacements and was also heavy to transport, according to Thomas Gregory, a gunner on a Bofors gun in France in 1940 within 52 Light Anti-Aircraft Regiment. It also worked less well against surprise 'tip and run' attacks and thus he and his crew mainly relied upon using tracer to help them get the rounds on target.⁴⁵⁰ Even so, they did not hit the (towed) target once, during their entire anti-aircraft gunnery training at Arbourfield. A few weeks later, having arrived in France, Gregory's unit found themselves, on 10 May, shooting at a group of attacking Ju 87 Stukas. But they failed to hit a single plane, despite firing off all their ammunition. The next day, Gregory's gun again failed to damage any of the Dornier 17s that returned at low-level to repeat the attack - although on that occasion, another Bofors gun in their troop did score a single hit.

A similarly low strike-rate with the Bofors gun can be seen in the results achieved by 147 Battery, whose six Bofors guns guarded the radar installations at Rye and Pevensey as well as the Royal Air Force airfield at Detling – all of which were subject to intense Luftwaffe attacks

⁴⁴⁹ TNA, WO 166/1939, war diary of 76th (Shropshire Yeomanry) Medium Regiment, Royal Artillery, 1940 to 1941.

⁴⁵⁰ IWM, Sound Archive, No. 13373/1-2, Thomas Gregory, Gunner, 155 Battery, 52 Light Anti-Aircraft Regiment, summer 1940.

on almost every day in the second half of August 1940.⁴⁵¹ Thus, on 12 August, at 09.30, six Messerschmitt 110's attacked the radar installation at Pevensey during which its Bofors gun was able to fire just two rounds before it jammed. Ten minutes later, three Dornier 17's attacked the radar site at Rye and despite fourteen Bofors' rounds being fired, no hits were scored. And in the early evening of that same day, twelve Dornier 17's again attacked Rye's radar, during which 44 Bofors' rounds were fired, but just one enemy plane was, according to the unit's war diary, 'thought to have been hit but not brought down'. Indeed, for the whole of those two weeks, despite the two radar installations and the airfield being under near constant low-level Luftwaffe attacks, multiple times per day, 147 Battery's six Bofors gun were credited with just six aircraft shot down. And this was despite (as the Battery's war diary also reveals), the Luftwaffe bombers being particularly vulnerable because they often attacked at lower speed than normal in pursuit of the pin-point accuracy required to destroy radar masts. In summary then, all this shows that, in the middle of 1940, what Bofors gun there were would have needed to be manned by highly-skilled gun crews, in order to give Army formations meaningful protection from enemy aircraft.

Furthermore, again according to Thomas Gregory, the noise of firing the Bofors was, 'deafening' and 'its barrel needed detaching and cleaning each day' - a task that required three men (out of the crew of five), to achieve. It also took a full 'five to six minutes' for a mobile Bofors gun being towed behind its truck to be made ready for firing, when enemy aircraft appeared overhead. Given that a Luftwaffe attack might be delivered in seconds, that was a long time. For, in truth, the Bofors was mobile only in the sense that it could be moved from place to place with ease, but not in terms of it being able to be fired 'on the move', which a column of counter-attacking forces heading south might have needed. Not only did it take valuable minutes to prepare the Bofors for firing, but the accuracy of the weapon was greatly increased if it was lowered down from its front and rear axles to rest upon its stabilisers. Thus, John McSwiney, an officer commanding a troop of Bofors guns in France (all of which were later abandoned at Dunkirk), found himself ordered to use his guns to protect one of the many retreating routes to the coast. Having seen a unit of the Black Watch march through they received notice of an impending air attack, after which his battery commander ordered that each gun should be kept on its wheels to facilitate a rapid exit if necessary. McSwiney chose

⁴⁵¹ TNA, WO 166/2716, war diary of 43 Light Anti-Aircraft Regiment, containing an account of 147 Light Anti-Aircraft Battery, 1939 to 1941.

to ignore this command, ('it didn't make sense' he recalls) and instead ordered that his troop's guns be lowered onto their stabilisers because he was only too aware that, without this, they would lack a sufficiently stable firing platform to attack the Messerschmitt's now arriving overhead.⁴⁵²

It is (presumably) due to these operational 'limitations' that most of the Bofors guns Britain possessed in September 1940 had been positioned in emplacements protecting 'vulnerable points' that might be attacked, rather than allocated to a more 'mobile role'. It is beyond the scope of this study to evaluate the siting of the UK's stock of 40mm Bofors guns in September 1940 other than to say that, without doubt, many of these 'vulnerable sites' clearly needed defending. For example, on 3 October 1940, a lone Junkers 88 appeared at low-level over Hatfield Aerodrome where the Mosquito aircraft was being developed. Just how the Luftwaffe had gained this intelligence is of interest on its own, but the skill that the crew of the Junkers then demonstrated when dropping their four bombs directly onto the building that contained both the sheet metal production shop and the De Haviland Aeronautical Technical School, can only be applauded.⁴⁵³ Indeed, with twenty-five skilled workers killed, plus over one hundred wounded and with production seriously affected, this raid is a testimony to what the Luftwaffe could achieve in terms of precision daylight attacks at low-level in late 1940 – when (as noted in Chapter Three) the Royal Air Force had all but abandoned daylight bombing raids over German territory. But the key point here is that, as it attempted to make its escape, the Junkers 88 was brought down by the crew of the 40mm Bofors gun guarding the aerodrome's perimeter. What this story really demonstrates is that there were simply too many valuable assets that needed the protection of Bofors gun in the late summer of 1940, to enable the potentially pressing needs of XII Corps and the GHQ Reserve to be the top priority.

Thus, the safety of both the more mobile formations within XII Corps and the counter-attacking forces of the GHQ Reserve coming south in the event of an invasion, would have largely been left to light anti-aircraft units from Anti-Aircraft Command, equipped not with Bofors guns but only with machine guns. As already noted, few such AAMG units were attached to (or under the auspices of) Britain's counter-attacking reserve at the time. Thus, in

⁴⁵² IWM, Sound Archive, No. 17528/1, John McSwiney, Troop Commander, 2 Light Anti-Aircraft Battery, (1 Light Anti-Aircraft Regiment), France, May 1940.

⁴⁵³ www.dhaetsa.org.uk - De Haviland Aeronautical Training School Association, 2010 - Hatfield Aerodrome Heritage Trail, p. 8, [accessed September 2021].

the event of an invasion, much of the protection that XII Corps' mobile forces and the GHQ Reserve would have had from air attack would have had to come from their own automatic infantry weapons fitted piecemeal onto vehicles or simply pointed skywards. In summary then, in the event of an invasion, the lack of sufficient modern light anti-aircraft weapons in the summer of 1940, would have further degraded the capability of XII Corps to combat German forces near the coast not to mention the GHQ Reserve's ability to execute large-scale mobile counter-attacks.

Tanks and transportation

Of all the areas of equipment that would have had the greatest influence upon the Physical Component of 'Fighting Power' in September of 1940, tanks stand out - not least because of what the Wehrmacht had shown they could achieve in France, particularly when used in concentrated numbers. The (complex) subject of the nature the British Army's armoured fighting doctrine by mid-1940 and of how this emerged in the late 1930s, will be investigated in Chapter Three. However, it is important in this section on equipment to establish how many tanks Britain had in the UK as the invasion crisis grew and how this figure related to what was considered necessary at the time to repel enemy landings. Furthermore, an assessment needs to be included of the quality of the key types of British tank that would have spearheaded mobile counter-attacks against German forces in southern England.

As noted in numerous secondary sources, British tank losses in France were high - Robert Forczyk concludes that over 615 tanks did not return from the campaign.⁴⁵⁴ In truth, this figure is misleading because a large proportion of these losses were of light tanks, particularly the Vickers Mk IV. Armed only with a single heavy machine gun and with thin armour, these tanks were already obsolete in mid-1940 and were mainly used in reconnaissance or 'light skirmishing' roles in France – although Charles Moore is clear that light tanks from the 13th/18th Hussars played an important fighting role during the British counter-attack on the Ypres-Commines canal.⁴⁵⁵ Critically however, the performance of the more modern British (so-called) 'cruiser' and 'infantry' tanks was disappointing in France and few returned from there. After Dunkirk, Britain's remaining tanks were allocated to the GHQ Reserve, as laid out in Appendix III. VII Corps, based in Surrey, contained both 1 Armoured Division (mainly cruiser

⁴⁵⁴ Forczyk, *Operation Sea Lion*, p. 22.

⁴⁵⁵ Charles More, *The Road To Dunkirk: The British Expeditionary Force and the Battle of the Ypres-Commines Canal, 1940*, (Barnesley: Frontline Books, 2013), p. 107.

and light tanks), and 1 Army Tank Brigade with its Mk II (Matilda) infantry tanks. Furthermore, 'deeper reserves' in the form of 21 Army Tank Brigade, with both Mk II (Matilda) and a small number of the new MK III (Valentine) infantry tank - were based at West Lamington near Salisbury Plain. IV Corps, headquartered in Buckinghamshire, contained 2 Armoured Division - but this had been 'plundered' to fill gaps in 1 Armoured Division as it went to France and so now merely contained a 'hotch-potch' of armoured fighting vehicles, including a regiment of cruiser tanks down in Warminster (that were in any event transferred to 1 Armoured Division in September 1940) and a further regiment of cruiser tanks based in Cambridge - ready to move into East Anglia in the event of an invasion.⁴⁵⁶

In terms of replacing tank losses from June 1940, there were significant production constraints. Thus, total UK production of 'modern' tanks in quarter three of 1940 was 392, i.e., just 130 tanks per month from July to September 1940.⁴⁵⁷ Furthermore, the challenge of Britain's competing imperial commitments caused the War Cabinet (controversially) to send 50 cruiser tanks and 50 Mk II (Matilda) infantry tanks to Egypt in August 1940 – as will be explored in Chapter Three.⁴⁵⁸ Indeed, thanks to losses in France, slow production rates and the threat to Egypt, Britain was left with only around 350 of what might be termed 'modern tanks' in mid-September 1940 i.e., those of modern design that could realistically fight Wehrmacht forces – as shown in Appendix III and Appendix IV. These comprised around 150 Mk II (Matilda) infantry tanks, 50 of the new Mk III (Valentine) infantry tank and around 150 of the fast but lightly armed (A9, A10 and A13) cruiser tanks. This was, to say the least, some way below what might have been expected from a combination of two Army tank brigades and two armoured divisions under normal circumstances. Also, critically, as Appendix IV also demonstrates, only around 75 of those 'modern' tanks had been moved into either Kent or Sussex by Brooke by the end of September 1940, as the perceived threat grew. Furthermore, realistically, the total figure of around 350 tanks needs to be adjusted downwards (by perhaps 10%) to take account of deep maintenance requirements at any given moment – something that was a real issue given the heavy training schedule that all tank formations undertook in the summer of 1940. In summary then, the numbers of 'modern' tanks available within VII Corps and IV Corps of the GHQ Reserve, as the invasion crisis peaked, was concerning.

⁴⁵⁶ TNA, WO166/1, war diary of Home Forces GHQ, September 1939 to December 1940 and WO 166/72, war diary of Eastern Command, Headquarters, 1940 – various entries, August 1940.

⁴⁵⁷ Central Statistic Office, *Fighting with Figures; A Statistical Digest of the Second World War*, (London: C.S.O, 1995), p. 166.

⁴⁵⁸ TNA, CAB 80/16/2, War Cabinet; minutes of Chiefs of Staff Committee, 11 August 1940.

Furthermore, the numbers that were available need to be viewed in the context of what Brooke subsequently demanded (in November 1940) for the Home Forces during 1941 – as noted earlier.⁴⁵⁹ In his plan, Brooke made the case that Britain needed no less than four fully-equipped armoured divisions and four army tank brigades – all to be allocated to the mobile reserve role. On the basis that each army tank brigade had an establishment of 150 tanks and that, an armoured division (by late 1940) had two brigades of ‘modern’ tanks (rather than just one so-called ‘heavy’ brigade as had been the case before France), the total number of tanks Brooke said he needed to defend the UK, was around eighteen hundred. Even allowing for some ‘wishful thinking’ on Brooke’s part, the gulf between what he said he needed for 1941 and what he had back in September 1940, was huge. It is also worth noting that this deficit in ‘modern’ tanks in the summer of 1940 was not highlighted in Churchill’s *Their Finest Hour*. Indeed, in this book he went so far as to state that, ‘three armoured divisions (or their equivalent in brigades) were available defend the South-East by mid-September 1940’⁴⁶⁰ Given the actual tank numbers outlined in Appendix III, this statement can only be described as ‘misleading’, to say the least. Thus, Max Hastings is doubtless correct to describe Churchill’s History of the Second World War as, ‘ruthlessly partial’.⁴⁶¹

The quality and the capability of those tanks, based on the experience in France, was also worrying. In terms of the infantry tanks, although the frontal armour on the Mk II (Matilda) infantry tank proved thick enough to protect it from German anti-tank guns in France (typically the 3.7cm Pak), the tank’s maximum speed over level ground proved too slow (at 12mph) – even given the fact that it had been designed to accompany infantry formations. Indeed units operating the MK II (Matilda) infantry tank even received a training memo in August 1940 forbidding it to be driven at more than 8 mph, because of the damage this caused to its tracks.⁴⁶² Also, the 2-pounder armament used on all three tanks proved underwhelming in action, as has been widely documented. Thus, Alan Wollaston, an NCO with the 3rd Royal Tank Regiment (1 Armoured Division), having been sent straight from the dockside in his cruiser tank with its 2-pounder gun to take on the German forces ringing Calais, recalls that he and his crew, ‘soon realised that it was not going to be big enough.’⁴⁶³ And Arthur Topliss, an NCO with 4 Royal

⁴⁵⁹ WO 199/569, Military Defence of the UK, November 1940, Paper by Lieutenant-General Sir Alan Brooke entitled; *Plan for Home Defence for 1941*, 28 November 1940.

⁴⁶⁰ Churchill, *Their Finest Hour*, p. 262.

⁴⁶¹ Max Hastings, *Finest Years: Churchill as Warlord 1940-45*, (London: Harper Press, 2009), Introduction, p. XVI

⁴⁶² TNA, WO166/1127, war diary of 21st Army Tank Brigade, Training Memo No.9, August 1940.

⁴⁶³ IWM, Sound Archive, No. 11907/1, Alan Wollaston, NCO, 3rd Royal Tank Regiment, 1 Armoured Division.

Tank Regiment who fought in France, notes that, ‘a 2-pounder had an effective range of only 1,000 yds...whereas an 88mm field gun could knock the turret off a British tank at 3,000 yards.’⁴⁶⁴ Furthermore, Henry Foote, a Staff Officer at the War Office, who went with 7 Royal Tank Regiment to the Middle East, is clear in his testimony that even in 1939 it was known that 2-pounder guns on tanks were obsolete, but that getting the new 6-pounder gun being developed at Woolwich into production would have entailed shutting down the 2-pounder production line for many months – something that Churchill had personally forbidden them to do.⁴⁶⁵ This was despite the fact that the Bartholomew Committee had made a specific recommendation in July 1940, that the planned new 6-pounder gun, both in its anti-tank gun and main tank gun configurations, was an urgent priority given the additional armour that was known to be being added to German tanks.⁴⁶⁶

Furthermore, both infantry and cruiser tanks suffered continual mechanical issues in France. In a letter to the War Office on 26 May, Brigadier Pope, distilled some of the lessons that had been learnt in relation to British tanks during the campaign. In addition to underlining the need for thicker frontal armour and more firepower, he emphasised that mechanical reliability needed to be improved. As he stated, ‘75% of our casualties have been due to mechanical failures and our infantry tanks need to be faster. In particular, tank tracks are more prone to wearing out than they should be.’⁴⁶⁷ When he took over command of XII Corps in June 1940, General Sir Andrew Thorne noted his surprise that, the event of invasion, Mk II (Matilda) Infantry tanks from VII Corps, having arrived by rail from their base near Dorking to counter-attack, would need significant maintenance after just 30 miles of driving in the Kent or Sussex countryside.⁴⁶⁸

Overall, Britain’s infantry tanks had significant deficiencies in the summer of 1940 and it is noteworthy that the high attrition rate of infantry tanks during the (one day) Arras counter-attack was high – only thirty-one tanks (out of the fifty-eight Mk I and sixteen Mk II (Matilda) infantry tanks that left their start line), being available for action the next day.⁴⁶⁹ And that was despite the Mk II (Matilda) having the heaviest armour of any allied tank except for the French

⁴⁶⁴ IWM, Sound Archive, No. 12093/4, Arthur Topliss, NCO, 4th Royal Tank Regiment, 1 Army Tank Brigade.

⁴⁶⁵ IWM, Sound Archive, No. 10812/1, Henry Foote, Staff Officer at War Office.

⁴⁶⁶ TNA, CAB 106/220, *Final Report of the Bartholomew Committee on lessons to be learnt from the operations in Flanders*, June 1940-October 1940

⁴⁶⁷ Basil Liddell Hart, *The Tanks; The History of the Royal Tank Regiment, Volume Two*, (Cassell: London, 1959), p. 35.

⁴⁶⁸ NAM, 3505-3516, Private Papers of General Sir Andrew Thorne, handwritten note, July 1940.

⁴⁶⁹ IWM, Sound Archive, No. 20950/1, Peter Vaux, Officer, 4th Royal Tank Regiment, 1 Army Tank Brigade.

Char B1 bis heavy tank.⁴⁷⁰ All this is concerning given that British infantry tanks could well have found themselves once again facing the German Army (supported by the Luftwaffe) in south-east England only a few months later. Nor was the new Valentine Mk III infantry tank, of which many thousands were built in 1941 and 1942, much of an upgrade to the Mk II (Matilda) infantry tank. For a start it had the same underwhelming 2 pounder main gun but, according to the war diary of 48 Royal Tank Regiment in late 1940, its engine's cylinder heads were prone to developing cracks and its tracks still broke too easily – so much so that the regiment's commanding officer personally complained to the War Office.⁴⁷¹

The situation was, if anything, worse with cruiser tanks - the very concept of which was being questioned by many by 1940, as the examination of armoured doctrine in Chapter Three will show. Cruiser tanks, designed to attack groups of infantry across open ground, were fast, and but thinly-armoured. Sadly, in France, they proved highly vulnerable to German 3.7cm Pak guns, even at well over 500 yards. They also suffered from a lack of mechanical reliability.⁴⁷² These defects were demonstrated all too visibly on 26 May, in France, when 1 Armoured Division's two brigades of (some 257) cruiser tanks were tasked with attacking the (by now well-defended) bridgehead that the German Army had established across the River Somme at Abbeville. This was not the type of operation that cruiser tanks were designed for, as Major-General Evans (commanding 1 Armoured Division) pointed out at the time to the commander of 7th French Army, General Altmayer - under whose auspices Evans's force sat. Furthermore, 1 Armoured Division had been sent to France without either its usual artillery or infantry components.⁴⁷³ Not surprisingly under the circumstances, Evans's protestations fell on deaf ears and the attack was scheduled for the next day – albeit with the promise of support from a formation French motorised infantry. Subsequently, in just a few hours, no less than sixty-five British cruiser tanks were lost - mainly to anti-tank guns that the French infantry were unable to neutralise.

These losses would have been bad enough but, a further fifty-five cruiser tanks succumbed to significant mechanical wear and other defects during the battle.⁴⁷⁴ Notwithstanding the

⁴⁷⁰ Hugh Sebag-Montefiori, *Dunkirk, Fight to the Last Man*, (London: Viking, 2006), p. 71 and Appendix A, p. 155.

⁴⁷¹ TNA, WO 166/1421, war diary of 48 Royal Tank Regiment, September 1939 to December 1941.

⁴⁷² Forczyk, *Operation Sea Lion*, p. 232.

⁴⁷³ TNA, WO 204/8236, History of 1 Armoured Division, 1940-1941.

⁴⁷⁴ Basil Karlake, *1940, The Last Act: The Story of the British Forces in France After Dunkirk*, (London: Leo Cooper, 1979), pp. 106-110.

obvious fact that cruiser tanks lacked sufficient frontal armour, the extent of these mechanical defects must have been concerning at the time. They were underlined by Ernest Cheeseman, a trooper in the 5th Royal Tank Regiment (1 Armoured Division), who fought at Abbeville. In his testimony he complains about the many maintenance issues associated with cruiser tanks, noting that as there were no tank transporters in France most cruiser tanks had to move by road, a problem compounded by the fact that ‘many of them had already consumed at best some 40% of their natural mechanical life before they even left the UK.’⁴⁷⁵ Thus, ‘the tanks were breaking down to beyond our capability to repair them’. Furthermore, he states that the new A13 cruiser tank had a powered traverser which was not stabilised – a defect that ‘made it less accurate when firing on the move.’ In summary, the overall performance of cruiser tanks in France was disappointing to say the least and this study has uncovered no evidence that any of the mechanical or armament issues that became apparent there had been even partly resolved by September 1940. Indeed 1 Armoured Division spent the summer after Dunkirk being re-equipped slowly with the same A13 cruiser tanks – only now too often in the hands of relatively inexperienced crews, given the casualties suffered in France. The fact that (as Appendix III shows) cruiser tanks comprised some 150 (or 43%) of Britain’s total of 350 ‘modern’ tanks in September 1940, does not inspire confidence in the ability of Britain’s armoured forces to repel a significant incursion – even before any evaluation of how these tanks might have been used in battle in southern England.

The fact is that, given the experience in France where large numbers of both cruiser tanks and infantry tanks were lost in engagements lasting no more than a day, Britain’s 350 or so ‘modern’ tanks would probably not have lasted long as a counter-attacking force in the event of an invasion. This point is also endorsed by Ian Lofting, not least because the facilities to repair knocked-out or broken-down British tanks in the Kent and Sussex countryside were limited.⁴⁷⁶ This is further underlined by the tank losses the French experienced at the hands of the 3rd and 4th Panzer Divisions during the fighting in the so-called ‘Gembloux-gap’ (between Wavre and Namur) between 12 May and 14 May. During this engagement, some 105 French tanks from the 2^{ième} and 3^{ième} Division Légères Mécaniques were put out of action.⁴⁷⁷ Although many of these tanks would have been classified as ‘light’ at the time, a significant

⁴⁷⁵ IWM, Sound Archive, No. 18516/23, Ernest Cheeseman, Trooper, 5th Royal Tank Regiment, 1 Armoured Division.

⁴⁷⁶ Lofting, *We Shall Fight Them*, p. 173.

⁴⁷⁷ Sebag-Montefiori, *Dunkirk, Fight to the Last Man*, p. 71 and Appendix A, p. 540.

proportion of the losses involved the (20 ton) Souma S-35 tank. This had a 47mm main gun, thus giving it more firepower than any British armoured vehicle at the time. It also boasted thicker frontal armour than an A13 cruiser and yet it could also reach a top speed of 20mph - considerably more than the Mk II (Matilda) infantry tank. If even the Souma S-35 proved vulnerable in the face of German panzers and anti-tank guns, it is no wonder that the British tanks found the going so tough throughout the campaign in France.

Finally, it should also be noted that the tank numbers stated in Appendix III, do not take account of the decision taken by the War Cabinet to send a further one hundred 'modern' tanks the Middle East – in addition to the one hundred tanks that left for Egypt in August 1940. What is particularly worrying here is that this second tranche of 'modern' tanks, that sailed for the Middle East in October 1940, was withdrawn from the order of battle some weeks previously to be transported north and prepared for embarkation. Thus, the cruiser tanks of 3 Royal Tank Regiment and 5 Royal Tank Regiment, based in Cambridgeshire and Kent respectively, ceased their training activity in mid-September as they came under War Office control and were effectively no longer part of the nation's counter-attacking forces. This was a significant depletion of capability. To illustrate this, 3 Royal Tank Regiment, having been re-formed after its costly operations around Calais in May was part now part of the much-diminished 2 Armoured Division within IV Corps. By September 1940 it was in possession of fifty-four brand new A13 Cruiser tanks. However, it was not doing much in the way of training in mobile combined arms counter-attacking because it had already received the order to prepare to go overseas - something confirmed by the testimony of one of its troopers, Fred Dale of A Squadron.⁴⁷⁸ Indeed, another trooper Albert Shaw, wrote to his mother on 12 September, complaining about the lack of military activity, having spent the previous afternoon assigned to a detail tightening guy-ropes. 'No one seems to care what we do, so long as the camp is kept in order,' he wrote.⁴⁷⁹

Furthermore, the war diary of 5 Royal Tank Regiment, which contained another fifty cruiser tanks is curiously vague about its precise whereabouts as September wore on. However, it subsequently sailed from Liverpool in the same convoy as 3 Royal Tank Regiment in October 1940, having also come under War Office control at some point in late September. Thus, these

⁴⁷⁸ IWM, Sound Archive, No. 18445/1, Fred Dale, Trooper, 3 Royal Tank Regiment, 2 Armoured Division.

⁴⁷⁹ BBC The People's War Archive, A849307, Letter from Albert Shaw to Mrs Eveline Shaw, 12 September 1940.

one hundred tanks, or some 30% of the total available ‘modern’ tanks listed in Appendix II were, it seems, less ‘operationally available’ to participate in the task of attacking an invader’s bridgehead in late September 1940 than has been hitherto thought. In summary then, the inescapable conclusion is that Britain’s position in relation both to its numbers of ‘modern’ tanks and to their capability, was arguably poorer during the peak of the invasion crisis than has been explored hitherto in the historiography.

The availability of adequate transportation would have been another crucial element of ‘fighting power’ in September 1940, not least given the need for British counter-attacking forces to be as mobile as possible. Indeed, Brooke’s role with the (first) British Expeditionary Force gave him direct experience of the military advantages to be gained in modern warfare by the rapid movement of large formations by road – given his dramatic relocation of II Corps to cover the left flank of the Dunkirk perimeter following the capitulation of Belgian forces. Indeed, according to Charles More, the British Army’s ability to move its forces around at pace by road, surpassed that of both the French and German Armies – one good example of this being when the British moved several divisions from the eastern frontier line back to the south-eastern front on 23 and 24 May.⁴⁸⁰ It is also worth noting the sheer volume of military trucks and lorries such mobility required. Thus, when (after Dunkirk), the now enlarged 51 (Highland) Division was ordered by the French to move up from the Le Mans area to St Leger aux Bois as part of their plan to protect Paris, its road column numbered some 3,000 vehicles.⁴⁸¹

Yet, back in the UK in the summer of 1940, Army transportation was thin on the ground given that almost 64,000 vehicles had been lost in France at a time when, according to Forczyk’s analysis, the annual production of military vehicles was only 90,000. Thus he concluded that, despite the fact that Britain had started the war with a level of motorization that was superior to that of both her allies and her enemies, only a relatively small component of the British Army in the UK could be described as fully mobile in September 1940 – a situation that would not be resolved ‘until late in 1941’.⁴⁸² This conclusion is endorsed in the minutes of a meeting of the War Cabinet on 6 September 1940, during which it was reported by the Secretary of State for War that only five (presumably regular) divisions in the UK had their

⁴⁸⁰ More, *The Road To Dunkirk*, p. 193.

⁴⁸¹ Karslake, *1940, The Last Act*, p. 114.

⁴⁸² Forczyk, *Operation Sea Lion*, p. 22.

first-line transport complete.⁴⁸³ The transport situation was thus clearly challenging, but in relation to the ‘fighting capability’ to repel an invasion there is evidence that the shortage of transportation most certainly extended to the GHQ Reserve of VII and IV Corps and the front line forces of XII Corps in Kent and Sussex – despite them being a transport priority in the light of their mobile counter-attacking role.

Looking first at XII Corps, the war diaries (which typically do not mention much about transportation capability), do reveal that many additional vehicles had to be hired or requisitioned in the summer of 1940. For example, within 1 (London) Division, 1 London Brigade had nominated the 8th Battalion, Royal Fusiliers and the 1st Battalion, London Irish Rifles London as its ‘mobile striking forces’. However, on 9 September, the Brigade’s Transport Officer had to gain permission to requisition more civilian transport in the event of an invasion – despite this division being a front-line formation.⁴⁸⁴ Also, within 2 London Brigade, the 1st Battalion, The Queen’s Westminster Rifles, recorded in its war diary in August that it now had 27 bicycles for its Tank Hunting Platoon, again despite potentially being in the front line of an effort to repel an invader.⁴⁸⁵ And when the 6th Battalion, Border Regiment, based at Hornsea (part of 198 Brigade) had to relocate to Manston aerodrome, a lack of transport meant a time-consuming shuttle system to achieve this.⁴⁸⁶ Finally, within 45 (West Country) Division in Sussex, the war diary of the 2nd Battalion, South Staffordshire Regiment (part of 31 Independent Brigade), that had just arrived around the Royal Military Canal at the end of September to bolster defences, makes it clear that in the event of it being required to fulfil its planned role of counter-attacking towards Hythe, at least two of their companies would be making that journey on bicycles.⁴⁸⁷ All this leads one to question just how ‘mobile’ some of XII Corps forces in Kent and Sussex would have proved in the event of an invasion.

The transport situation within the GHQ Reserve was also problematic. Within VII Corps, largely based in the vicinity of the ‘Dorking Gap’ in the Surrey Hills, 1 Canadian Division, the only complete infantry division within VII Corps, appears to have had its full complement of transport by September, given that its war diary records a formal request to the Canadians to

⁴⁸³ TNA, CAB 65/9 WM(40)244th, 6 September 1940.

⁴⁸⁴ TNA, WO166/1040, war diary of 1 London Brigade, September 1940.

⁴⁸⁵ TNA WO166/4510, war diary of the 1st Battalion, The Queen’s Westminster Rifles, August 1940.

⁴⁸⁶ TNA WO166/4156, war diary of the 6th Battalion, Border Regiment, August 1940.

⁴⁸⁷ TNA, WO166/4685, war diary of 2nd battalion, South Staffordshire Regiment, September 1940.

relinquish some of transport given acute shortages elsewhere.⁴⁸⁸ This relative ‘embarrassment of riches’ was just as well given that the role of 1 Canadian Division, in the event of an invasion, would have been to immediately embark in convoy towards their southern ‘position of readiness’ outside Tonbridge. From there they would have proceeded to the coast down one of three carefully chosen routes with police on hand to direct fleeing civilian traffic onto other roads, by force if necessary.⁴⁸⁹

And within in IV Corps, 125 Brigade had similar issues. Based in the north-east before being brought south and added to the GHQ Reserve, the brigade’s war diary records how, in early July, the lack of transportation meant that the whole brigade had to march some 35 miles, at night, from Stanhope to Maften. After that, 60 civilian coaches were hired.⁴⁹⁰ But whether transport was hired or not it is important to note again just how much of it was required to move formations from place to place in the summer of 1940. The war diary of 126 Brigade also explains that it took twenty-three coaches just to move the men of two of its battalions, plus ten 30cwt trucks and numerous further vans for their equipment. Another six vans were required to move the brigade HQ. When the brigade was later moved into the Maidenhead area in mid-September, to be closer to the south coast, Movement Order No.3 explained that the brigade would move south in four columns – involving some 260 vehicles – not including their Bren Carriers which were to follow the next day.⁴⁹¹

Finally, navigation might also have been an issue had 42 (East Lancashire) Division had to move into deepest Kent and Sussex to repel an invader, given that most road signs had been removed. It is interesting in this regard that the 4th Battalion, (within 127 Brigade), having driven down from Yorkshire to their new base in Newbury on 10 September, had to send their Intelligence Officer to brigade headquarters two days later to pick up about 1000 maps of the Kent and Sussex countryside.⁴⁹² Transport issues also affected what could be described as ‘deeper reserves’. For instance, the Australian Imperial Force of some 5,000 men on Salisbury Plain, evidently did not have enough transportation to make it fully mobile, should it have needed to counter-attack. According to a Southern Command report on the role of the

⁴⁸⁸ TNA, WO 179/37, war diary of 1 Canadian Division, HQ, VII Corps, GHQ Reserve, June to August 1940.

⁴⁸⁹ Ibid.

⁴⁹⁰ TNA, WO166/975, war diary of 125 Brigade HQ, July 1940.

⁴⁹¹ TNA, WO166/976, war diary of 126 Brigade, 42 (East Lancashire) Division, September 1940.

⁴⁹² TNA, WO166/4249, war diary of the 4th Battalion, East Lancashire Regiment, 126 Brigade, , 42 (East Lancashire) Division, September 1940.

Australian Force, it had few military trucks and so would have had to rely upon 73 hired coaches just to move its men, never mind their equipment. Sadly, it transpired that 27 Motor Coach Company (under Australian Command) could only hire some 30 coaches when ordered to do so on 22 September 1940 during an invasion alert. As a result, plans for a relay system had to be drawn up – the efficacy of which was never put to the test.⁴⁹³ But it is clear that it would have taken considerable time.

In his analysis, Forczyk concludes that the transport situation was so severe in the summer of 1940, that the Army would have struggled to get more than around 50,000 troops into a counter-attacking battle against German forces within one week of an invasion. That said, this view is not backed up with much evidence beyond the assertion that most divisions had significantly less than their establishment of 2,000 military vehicles and so, despite the large-scale requisitioning of civilian vehicles, their mobility was significantly reduced.⁴⁹⁴ He also makes no mention of the role Britain's rail network might have played in hastening the advance of forces to the south coast. But there is no doubt that moving large quantities of men and equipment into the south-east at pace would have been a huge challenge in terms of transport logistics alone. This is supported by the testimony of Peter Thorne, an officer in the 3rd Battalion, Grenadier Guards (part of the 1st Guards Brigade within 1 Division) – and the son of General Sir Andrew Thorne. He wrote to his mother in August 1940, explaining what his battalion had been doing in the face of the various invasion alerts. Primarily, these had demonstrated to him, 'Just how slowly even a mobile fighting reserve moves.'⁴⁹⁵

And had an invasion occurred, Luftwaffe aircraft would doubtless have been searching Kent and Sussex for columns of British forces as they did so successfully in France, thus forcing many of the GHQ Reserve's formations to travel during the short hours of darkness, in blackout conditions, which would have meant even longer journey times. Evidence of just how real this threat was is demonstrated by the experience of the 1st Battalion, London Rifles, in northern Kent. On 6 September, it participated in a divisional training scheme west of Sandwich and on the way back to its camp, one of its companies was subjected to repeated low-level attacks by

⁴⁹³ TNA, WO199/1616, war diary of HQ Southern Command, Paper; *The Role of the Australian Imperial Force in the UK*, September 1940.

⁴⁹⁴ Forczyk, *Operation Sea Lion*, p. 235.

⁴⁹⁵ NAM, 3367-3494, Private papers of General Sir Andrew Thorne; handwritten letter from Peter Thorne to Lady Thorne, dated early August 1940.

a single Messerschmidt 109, seemingly on the hunt for ‘targets of opportunity’.⁴⁹⁶ With the Luftwaffe searching *en masse* for anything moving by road, large divisional-scale moves would be severely disrupted. In summary then, getting significant elements of GHQ Reserve forces down into Kent and Sussex quickly, in September 1940, would have been a challenge indeed.

Communications

Radio communications at the beginning of the Second World War were an increasingly important component of any army’s ‘fighting power’. Sadly though in the case of the British Army, as Edward Smalley’s comprehensive study has shown, the momentum of new advancements within communications stalled somewhat in the mid-1930s for lack of both funds and emphasis - in much the same way as tank development stagnated.⁴⁹⁷ Not surprisingly then, when the British Expeditionary Force deployed to France in September 1939, only 1 Division and 2 Division had signals units which had been properly trained – and many of the territorial forces were underprepared to say the least when it came to modern military communications.⁴⁹⁸ In the wake of Dunkirk, the Bartholomew Committee’s Report listed a number of conclusions relating to the underperformance of the Army’s communications capability in France. As Smalley outlined, these included the fact that the whole communications system supporting the GHQ at Arras was overly complex (partly due to the multiplicity of dispersed sub-headquarters). It thus struggled after 10 May when the Army entered Belgium, as cable communications were increasingly disrupted and it became harder and harder for dispatch riders to get through.⁴⁹⁹ But, in what quickly became a high-tempo, mobile conflict, the performance of the Army’s wireless communications capability was, in the eyes of the Bartholomew Committee, particularly disappointing. Its report highlighted what it saw as an over-emphasis upon concerns surrounding signals security, (not helped by valid fears of German direction-finding capability) but which nevertheless had led to what the Committee described as, ‘an ingrained habit of wireless silence’.⁵⁰⁰ Furthermore, it noted that wireless communications had been hampered by confusion over operating procedures, the excessive use of cipher and an over-reliance upon formal written-orders even during fast-moving battlefield

⁴⁹⁶ TNA, WO166/4514, war diary of 1st Battalion, London Rifles, September 1940.

⁴⁹⁷ Edward Smalley, *The British Expeditionary Force, 1939-1940*, (Basingstoke: Palgrave Macmillan, 2015), p. 85.

⁴⁹⁸ R. Nadler, *The Royal Corps of Signals: A History of its Antecedents and Developments 1800 – 1939*, (London: Royal Signal Institution, 1958), p. 269.

⁴⁹⁹ Smalley, *The British Expeditionary Force*. pp. 13, 96 and 139.

⁵⁰⁰ TNA, WO 106/1775, *Final Report of the Bartholomew Committee on Lessons to be Learnt from the Operations in Flanders*, June 1940-October 1940, p. 16.

conditions. Thus, the report was clear in its recommendations that, during future hostilities, ‘maximum use of wireless should be made’ – notwithstanding the fact there had been a shortage of wireless sets and that many had proved unreliable ‘on the move’.

This shortage of equipment in relation to what was needed for wireless communications to make a significant difference is well demonstrated by David French’s study, which reveals that in 1940 each British infantry division in France had only 75 wireless sets whereas by 1944 the number was 1000.⁵⁰¹ Not that even the 75 were particularly reliable. Charles More’s investigation into communications during the Battle of France concluded that, although both German and British forces lacked sufficient battlefield radios, the British equipment appeared much less reliable overall. This made it harder for British battalion headquarters to liaise with artillery and infantry units without resorting to telephone lines or the use of dispatch riders and liaison officers.⁵⁰² This is supported by the testimony of Alexander Stanier, an officer in the Welsh Guards who bemoans the lack of working radios during the intense fighting for Boulogne, during which he had to resort to using dispatch riders.⁵⁰³ Further testimonies from the British Expeditionary Force also underline some of the issues that More identified. Thus, Peter Jeffries, an officer in the Durham Light Infantry who fought in partnership with 4 Royal Tank Regiment at Arras, explains that the lack of radio communications meant that the only way for the infantry to talk with armoured forces during battle was to, ‘Run up to a tank and shout to its commander.’⁵⁰⁴ And on the beaches of Dunkirk itself communications were also a problem. Ronald Mott a private in the 1/5th Queens Royal Regiment, having walked the last fifteen miles to the town, recalls seeing his battalion signals officer having to resort to old-fashioned Morse code into order to ask a circling RAF Lysander for information on when the Royal Navy might be coming to pick them up – using the headlights of a lorry that had been driven up a steep sand dune for that purpose!⁵⁰⁵ Without doubt then, the relative lack of radio communications within the British Expeditionary Force, impacted its effectiveness.

Not surprisingly, the same issues re-surface when the communications capability of XII Corps and the GHQ Reserve in September 1940 is examined. Indeed, in December 1940, at a meeting of the Commander-in-Chief Home Forces Conference it was noted in the minutes that across XII Corps as a whole, the ‘state of readiness’ of Signals equipment (mainly the standard

⁵⁰¹ David French, *Raising Churchill’s Army*, p. 180.

⁵⁰² More, *The Road To Dunkirk*, p. 192.

⁵⁰³ IWM, Sound Archive, No. 7175/6, Alexander Stanier, Officer, 1st Battalion Welsh Guards.

⁵⁰⁴ IWM Sound Archive, No. 9237/2, Peter Jeffries, Officer, 6th Battalion, Durham Light Infantry.

⁵⁰⁵ IWM, Sound Archive, No. 17731/2, Ronald Mott, Private, 1/5th Queen’s Royal Regiment.

Wireless Set No.11) was only 50%.⁵⁰⁶ Although little is made of this key equipment shortage in divisional war dairies within XII Corps and the GHQ Reserve, some relevant evidence has come to light as part of this study. Thus, the war diary of 1 London Brigade (based around Canterbury), records a training exercise in July 1940 involving its various component battalions the outcome of which was that communications within the brigade were categorised as ‘inadequate’, partly because many of these battalions were still relying wholly upon telephone lines.⁵⁰⁷ Also, within 45 (West Country) Division in Sussex, Eric Woods an NCO in the signals platoon of the headquarters company within the Duke of Cornwall’s Light Infantry was responsible for communication with the battalion’s forward companies in Newhaven. Interestingly, back in July 1940, his unit used only telephone lines - ‘Radio sets came later,’ he states. Thus, his Headquarters company also used dispatch riders to communicate with their brigade headquarters five miles away and even when Army wireless sets did begin to arrive, they initially transmitted Morse code rather than speech.⁵⁰⁸

Furthermore, within one of the GHQ Reserve formations, Douglas Old, an NCO in the Dorsetshire Regiment, reports that his signals platoon mainly used the No.18 set which, according to him, ‘wasn’t very reliable’ in the summer of 1940. Indeed, he explains that it took until the development of the No.48 set towards the end of the war which, being crystal-controlled, ‘wouldn’t go off net when you moved’, for radio communications to become truly effective.⁵⁰⁹ This view is also supported by Edward Smalley’s study which concluded that it was only by 1944 that the British Army had a wireless system robust enough to enable high-tempo operations to be maintained almost exclusively by verbal orders.⁵¹⁰ Sadly, this was far from the case in August 1940 when William Watson, a Lieutenant-Colonel with the Durham Light Infantry near Chesil Beach, recalled that his signalers, ‘had only a few rather feeble No.18 wireless sets.’⁵¹¹ Finally, even if signal reception was good, battery life was an issue if wireless sets were being used ‘on the move’. The war diary of 127 Brigade’s Headquarters reveals that the battery life of the (standard) No.11 wireless set, was only twelve hours and that spare

⁵⁰⁶ TNA, WO199/3056, Notes on Equipment and Ammunition, Minutes of Commander-in-Chief Home Forces’ Conference, December 1940.

⁵⁰⁷ TNA, WO166/1040, war diary of 1st London Brigade, July 1940.

⁵⁰⁸ IWM, Sound Archive, No. 16754/2, Eric Woods, NCO, 5th Battalion, Duke of Cornwall’s Light Infantry.

⁵⁰⁹ IWM, Sound Archive, No. 23146/1, Douglas Old, NCO, 4th Battalion, Dorsetshire Regiment, 130 Brigade, 43 (Wessex) Division.

⁵¹⁰ Smalley, *The British Expeditionary Force*, p. 86.

⁵¹¹ IWM, Sound Archive, No. 10420/13, William Watson, Lieutenant-Colonel, 6th Battalion, Durham Light Infantry.

batteries were in such short supply that its signals officer had had to devise a new drill to slow down battery usage.⁵¹²

Overall then there is little evidence that the situation regarding the availability and capability of wireless communications equipment within the field army had improved significantly by the time the invasion crisis peaked. Nor has this study uncovered compelling evidence that the robustness of wireless communication ‘in the field’ or its ‘procedural flexibility’ had dramatically improved – beyond, a modest number of mainly battalion-level signals exercises undertaken during the summer of 1940, plus a steady stream of wider divisional or brigade exercises, inevitably also involving signals. But the real impact of these is hard to determine after so many years. In summary therefore, it is clear that in the event of an invasion, XII Corps and in, particular, the mobile forces of the GHQ Reserve (most likely operating away from cable networks), would still have been at a distinct disadvantage when it came to wireless communications, compared to the Wehrmacht – whose wireless capability, it should be recalled, had been described by the Bartholomew Report as ‘outstanding’.⁵¹³

Perhaps not surprisingly then, wireless communications between Army units and the Royal Air Force were equally problematic in the summer of 1940, with inevitable implications for tactical air support. Indeed, it is fair to say that the Air Force’s enthusiasm for exposing its aircraft to low-level (and thus highly costly) activity might have been higher if it had had more confidence that its planes could be directed by the Army onto suitable targets with relative ease. Sadly though, as the invasion crisis peaked this was far from being the case. Following a joint Royal Air Force and Army initiative towards greater co-operation, the so-called ‘Wann-Woodall Report’ was produced in August 1940 which became the blueprint for a brand new signals network linking troops on the ground to so-called, ‘Close Support Bomber Controls’, that in turn connected both to Home Forces Command and to Royal Air Force sectors and stations.⁵¹⁴ But none of this was operational in the late summer of 1940 and even when it was first used as part of an exercise in January 1941, the War Office’s own history of tactical air

⁵¹² TNA, WO 166/977, war diary of 127 Brigade HQ, 42 (East Lancashire) Division, Memo entitled, *Points from Brigadier’s Conference*, October 1940.

⁵¹³ TNA, CAB/106, *Final Report of the Bartholomew Committee on Lessons to be Learnt from the Operations in Flanders*, June 1940–October 1940.

⁵¹⁴ TNA, WO 233/60, draft History of Tactical Support, 1939–1945, dated 10 June 1945, by Lt. Col. C. Carrington, Home Forces Liaison Officer, Chapter IV; The Wann-Woodall Report.

support admits that, ‘The teething troubles with the W/T were terrible.’⁵¹⁵ Furthermore, when an aircraft did arrive overhead, there was no way for troops to communicate with it other than by a set of pre-arranged signals known as ‘T’ Panel Code - mainly involving large strips of canvas on the ground, pointing to where bombs should be dropped. Given that this system was all they had, it was practiced extensively by frontline units in England in the summer of 1940. To give one example, the 6th Battalion of the Lancashire Fusiliers, part of 42 (East Lancashire) Division, took part in a divisional exercise specifically to practice communication by means of the ‘T’ panel code’, on 22 August 1940.⁵¹⁶ Its war diary states that, during the exercise, a Lysander pilot using the code from Royal Air Force Manual Volume 5, ‘Was seen to fire red smoke to the troops below [indicating] that he had spotted an enemy tank, before then diving towards the tank to point to its location’. And during a similar exercise on 14 August, in Surrey, involving 1 Canadian Division and 1 Army Tank Brigade (two key mobile components of the GHQ Reserve) the Canadian’s divisional war diary records the use of yellow smoke to notify aircraft overhead of the position of ground troops.⁵¹⁷ Doubtless the ‘T’ Panel Code system was better than nothing, but it is unlikely that it could have kept pace with the type of high-tempo engagement that the Wehrmacht had excelled at in France. Thus, in September 1940, the troops of XII, VII and IV Corps would have been dependent upon the existing methods of calling in air support, which had hardly changed since the Army had returned from Dunkirk – with no ability to speak to aircraft in the air. Thus, once their request for support had been filtered up (via wireless or telephone) through the Home Force’s command structure, it would have then been passed to the Royal Air Force. However, by the time an aircraft arrived overhead the situation might well have changed and if this was the case, troops on the ground would have to rely upon the use of the pre-arranged signals. In summary, calling in tactical air support and then directing it to precise targets would have been a hit and miss affair for the Army in southern England in September 1940. It would also have been challenging in terms of the capability of some of the aircraft that would have been sent in response to those calls.

⁵¹⁵ TNA WO 233/60, draft History of Tactical Support, 1939-1945, dated 10 June 1945, by Lt. Col. C. Carrington, Home Force Liaison Officer, Chapter VI, Close Support: Training and Development, p. 2.

⁵¹⁶ TNA, WO 166/4409, war diary of 6th Battalion, Lancashire Fusiliers, 125 Brigade, 42 (East Lancashire) Division, IV Corps, (GHQ Reserve), August 1940.

⁵¹⁷ TNA, WO 179/37, war diary of 1 Canadian Division, HQ, June to August 1940, memo dated 10 August, from Lieutenant - Colonel Keller, Staff Officer.

Tactical air support

Given that the American ground support types ordered by the Air Ministry at Brooke's request, namely the Brewster Buffalo and the Vultee Vengeance dive bomber, were both not due to arrive until February 1941 (and as already noted were ultimately delayed until May of that year) tactical air support in the summer of 1940 would have mainly come from the Fairey Battle's and the Bristol Blenheim's of the Light Bomber Force. But therein, lay many issues relating both to the aircraft themselves and the Air Force's views on what their operational priorities should be. As had been proved in France, the Fairey Battle's weaknesses were many. They included; a single engine, a low speed, a sluggish rate of climb to an operating height of between 8,000ft and 10,000ft, a lack of forward-facing armament, a modest 1,000lb bomb load and large tail-plane that obscured the view of the rear-gunner. It is thus not surprising at one level, that the Air Ministry's conclusion, after the experience in France, was that these aircraft were essentially not 'fit for purpose' in a tactical support role. This view was cemented by a report written by Air Vice-Marshal Patrick Playfair, Air Officer Commanding Bomber Command's No.1 Group, up to 27 June 1940.⁵¹⁸ As a result, the Fairey Battles of No. 1 Group were merely 're-integrated' back into Bomber Command's strategic bombing campaign once the hostilities in France came to an end. This was to some extent understandable, given that Fairey Battle crews had originally been trained for a strategic bombing role - though is noteworthy that not all crews had been able to see the logic of that original training in the first place. Rupert Parkhouse, for example, expresses surprise that, when going through his advanced pilot training on Fairey Battles in Devon in April 1940, he and his crew were being instructed on how to undertake missions to attack targets in Germany (given the Battle's modest 1,000lb bombload), rather than being taught how to support the Army.⁵¹⁹

For the Fairey Battle did, after all, have some redeeming features. For example, according to pilot Hugh Ironside, 'it was a good aeroplane to fly' and he goes on to say that, 'it was quite handy...I could roll it and loop it....it was strong'.⁵²⁰ Also, after Dunkirk, in June 1940, when the Luftwaffe's efforts were less concentrated on a single narrow area and the Fairey Battle was not being used against heavily-defended targets, its loss rates in France declined dramatically. On 6 June, for instance, nine Fairey Battle's from No.88 and No.103 Squadrons attacked concentrations of German troops at Chaulnes, escorted by Hurricanes from No.73

⁵¹⁸ TNA, AIR 35/255, *Report on Advanced Air Striking Force, 1939 to 1940*, by Air Vice-Marshal Playfair.

⁵¹⁹ IWM, Sound Archive, No. 15476/2, Rupert Parkhouse, Pilot Officer, Fairey Battle, No.12 Squadron, France.

⁵²⁰ IWM, Sound Archive, No. 13101/1, Wing Commander Hugh Ironside, Battle pilot, 1937-1939.

Squadron – and all of them returned.⁵²¹ This improvement is also reflected in the overall losses. Thus, between 5 and 15 June, some 234 sorties were flown by Fairey Battles with the loss of just twenty-three aircraft (9%) – far below the 50% attrition rate amongst Battles in the first week of the German attack.⁵²² Also, from the perspective of another pilot, William Smith, the Fairey Battle was also a decent dive-bomber despite having not been designed for that purpose and thus having no dive brakes. In his opinion it was smooth and ‘stable as a rock’ in a dive even at over 300mph.⁵²³ Indeed it was presumably with a view to using the aircraft as a dive bomber that Rupert Parkhouse, whilst based in a reserve squadron of Fairey Battles at Nantes in May 1940, was ordered to practice dive bombing from 8,000ft down to 3,000ft (something that he regarded as ‘indicating a change of tactics’ away from low level bombing), before being sent to a frontline air base.⁵²⁴ And with the Fairey Battle squadrons back in the UK, the new Air Officer Commanding Bomber Command’s No.1 Group, Air Vice-Marshal Breen wrote a memo to HQ Bomber Command commenting on dive-bombing experiments undertaken using this aircraft. In it he states that, in a dive-bombing attack a Fairey Battle could release a bomb as low as 2,000ft and achieve an average error of only about 50 yards.⁵²⁵ Therefore, operating under the skies of southern England and with some protection from Fighter Command, the Fairey Battle could have been effective.

Furthermore, the anti-aircraft capability of German forces in England would (presumably) have been considerably less than was on display when the huge concentration of light flak was assembled to defend the vital bridges at Sedan, back in May 1940. Thus, if a further investment had been made to give the Fairey Battle a better strafing capability and self-sealing fuel tanks – upgrades that were being fitted retrospectively to other aircraft types in Bomber Command throughout the second half of 1940 - its enhanced resilience to ground fire would have greatly increased its usefulness. Sadly though, none of these improvements transpired as the general view from the top of the Air Ministry was that the Fairey Battle was now largely redundant. Interestingly, not everyone agreed. Air Vice-Marshal Sholto Douglas (shortly to become Deputy Chief of the Air Staff), went so far as to state, in August, that from his perspective the

⁵²¹ Norman Franks, *Valiant Wings: The Battle and Blenheim Squadrons over France 1940*, (Wellingborough: William Kimber, 1988), pp. 239- 240.

⁵²² Middlebrook and Everitt, *The Bomber Command War Diaries*, pp. 44-55.

⁵²³ IWM, Sound Archive, No. 10472/1, William Smith, Squadron Leader, Fairey Battle, No.53 Squadron, 1937-1938.

⁵²⁴ IWM, Sound Archive, No. 15476/2, Rupert Parkhouse, Pilot Officer, Fairey Battle, No.12 Squadron, France.

⁵²⁵ TNA, AIR 14/181, Dive Bombing Policy, Memorandum from Air Officer Commanding No.1 Group, Bomber Command, to Headquarters Bomber Command, dated 2 September 1940.

Fairey Battle was, ‘A good type to attack troops as they land ashore.’⁵²⁶ Be that as it may, of the six squadrons of Fairey Battles in existence in September 1940, four remained something of an unexploited resource in terms of meeting the Army’s need for tactical support – and in any event both their aircraft and their crews were being depleted as a result of continued strategic bombing missions over occupied territory.⁵²⁷ The other two squadrons of Fairey Battles had, in fairness, now been allocated to conducting experiments and training in air support as part of the Wann-Woodall initiative (already referred to).

The Army’s other hope for tactical air support, the Bristol Blenheim, was a twin-engine light bomber (designed for multiple roles in its Mk IV version) but, again, it only carried 1,000lbs of bombs. As with the Fairey Battle, the Bristol Blenheim’s crews were not trained for low-level tactical warfare and thus, without sufficient fighter escorts and in the face of the Wehrmacht’s anti-aircraft capability, at least 180 Bristol Blenheim’s had been lost in France up to the end of June 1940.⁵²⁸ On return from France, Bristol Blenheim squadrons also found themselves merely absorbed into the strategic bombing campaign on the basis that, as with the Fairey Battle’s, they would be asked to support the Army should an invasion occur. However, a paper distributed by the Home Forces (presumably from the Air Ministry but with no reference number) in August 1940, goes to some lengths to explain why the Bristol Blenheim was unsuited for providing direct ground support to the Army.⁵²⁹ In addition to making the general point that bombers should not be used as a substitute for artillery and that Bristol Blenheim pilots had not been trained to operate independently over a battlefield looking for targets, the paper states that the Bristol Blenheim could not be used as a dive-bomber to attack ‘pin-point targets’ and that, as an aircraft type, it should be operated in groups of at least six in order to ensure some protection from fighters given the likely lack of continuous fighter escort. It also argues that during various attacks on armoured columns in France, it was thought ‘unlikely that Blenheim’s had succeeded in imposing much delay’. In the event of an actual invasion, the report concludes, good bombing targets at the head of German thrusts would be rare, except when congested roads lead to concentrations of German troops and these should in any event be tackled by the Army on the ground. In summary it suggests that Bristol

⁵²⁶ TNA, AIR 20/251, Deployment of Fighter Stations and Points at Fighter Aerodromes: Provision of Runways, Taxiing Tracks and Dispersal, Note from Air Vice Marshal Douglas Sholto, dated 13 August 1940.

⁵²⁷ Greg Baughen, *The Fairey Battle; A Reassessment of its RAF Career*, (Stroud: Fonthill Media, 2017), p. 117.

⁵²⁸ Grahame Warner, *The Bristol Blenheim*, (Manchester: Crecy Publishing, 2002), Appendix I, p. 212.

⁵²⁹ TNA, AIR 2/7218, Employment of Bomber Squadrons in Support of Land Forces in the Event of an Invasion of Great Britain, 1940, Paper distributed from GHQ Home Forces entitled; *Blenheim Bombers in Support of the Army, with Particular Reference to the Defence of the British Isles*, dated 15 August 1940.

Blenheim's should concentrate upon invasion beaches, shipping and the interdiction of supplies and reinforcements. Thus, according to this note the Bristol Blenheim's would not be playing to their strengths if asked to intervene directly on the battlefield in support of Home Forces troops.

Yet, as with the Fairy Battle, the Bristol Blenheim had performed better in a tactical support role after Dunkirk when faced with fewer Luftwaffe fighters, despite the fact that its single gas-operated rear Vickers gun, according to Air Gunner Eric Chandler, only had a short range and that its 100-round pans were challenging to change and then often jammed.⁵³⁰ It was regularly used to attack German columns in France in June 1940 without incurring anything like the losses suffered in mid-May. According to Frank Sinclair, a pilot with No.100 squadron (who went on to become an Air Vice-Marshal), Bristol Blenheim's proved effective during a raid against a German column near St Omer on 27 May 1940, during which he and other pilots had also scoured the countryside looking for 'targets of opportunity' without incident. Also, on 5 June, twenty-four Bristol Blenheim's, from No's. 107 and 110 Squadrons, attacked tanks and armoured fighting vehicles on the roads around Albert and Bapaume, again with no losses.⁵³¹ The Bristol Blenheim might not have been playing to its strengths in a low-level ground support role, but it could still bomb accurately in daylight from 6,000ft, something that the Army would have doubtless been grateful for – and there were some seven squadrons of them in England in the late summer of 1940.

It is also worth noting the value of a handful of well-placed bombs dropped from low-level. The war diary of 48 Royal Tank Regiment reveals that, in August 1940, a single Heinkel III bomber attacked its camp at West Lavington, from 3,000 ft - its four 250kg bombs narrowly missing the regiment's tank park.⁵³² Given that this unit was the only British armoured formation as yet equipped with some forty of the brand new Valentine Mk III infantry tank and (as already noted) that the Army only had around 350 so-called 'modern' tanks' at the time, this single tactical mission could have done real damage.⁵³³ If a lone Heinkel could achieve

⁵³⁰ IWM, Sound Archive, No. 11036/1, Eric Chandler, NCO Air Gunner, (later a Flight Lieutenant), Bristol Blenheim, No.107 Squadron.

⁵³¹ Franks, *Valiant Wings*, pp. 239- 240.

⁵³² TNA, WO 166/1415, war diary of 42nd Royal Tank Regiment, September 19 - March 1941, entry for 14 August 1940

⁵³³ Newbold, 'Preparations to Resist Invasion on Land', Appendix II, Tanks in the United Kingdom, 27 August 1940.

this over southern England, why could a Bristol Blenheim not do the same thing against a group of invading German tanks?

Sadly, in the event of the Light Bomber Force being desperately needed in September 1940 to help XII Corps and the GHQ Reserve to repel an invasion, the numbers of aircraft and crew available would have been considerably less than they might have been. This was because rather than some, or indeed all, of the light bomber squadrons being tasked with training for a tactical air support role in the summer 1940, the Fairey Battle and the Bristol Blenheim squadrons of No.1 and No.2 Group, between July and September 1940, were ordered to carry out a range of daylight and night missions over enemy territory and sometimes into Germany itself. A further 101 Bristol Blenheim's were lost on all operations between July and August 1940 alone, according to Grahame Warner's study.⁵³⁴ And on top of these losses, were the eighty-four Bristol Blenheim's and their aircrews that were sent to the Middle East in August 1940.⁵³⁵ Furthermore, these operational losses were not balanced by the success of many of the raids. For example, the daylight raid by Bristol Blenheim's from No.82 Squadron on the German airbase at Aalborg, on 13 August 1940, during which eleven out of twelve aircraft were shot down, has been described by Max Hastings as, 'A disaster reflecting almost Crimean stupidity on the part of those at Bomber Command who had ordered it'.⁵³⁶ Even if they had bombed from 10,000ft as planned and been relatively unmolested, the damage they could have inflicted is questionable. As Frank Sinclair, a Bristol Blenheim pilot with No.110 Squadron puts it, the value of these operations was questionable given the likely effect of 'our four little 250lb bombs.'⁵³⁷

It is outside the scope of this study to evaluate in any detail the validity of the raids undertaken by the Bristol Blenheim force, on Bomber Command's orders, between July and September 1940. This would in any event be hard to do without access to more information as to why some missions were ordered and what damage they were believed to have done at the time. However, various long-distance daylight raids by Bristol Blenheim's, including another raid on the airfield at Aalborg on 6 August and the raid by No.107 Squadron on the airfield at

⁵³⁴ Warner, *The Bristol Blenheim*, losses for July and August 1940, listed in Appendices I to VII.

⁵³⁵ TNA, CAB 80/16/2, War Cabinet; Chiefs of Staff Committee, supporting memoranda, 11 August 1940, Appendix B, Air Ministry Proposed Overseas Reinforcements.

⁵³⁶ Max Hastings, *Bomber Command*, (London: Michael Joseph, 1979), p. 79.

⁵³⁷ IWM, Sound Archive, No. 9818, Air Vice-Marshal Frank Sinclair, pilot, Bristol Blenheim, No.110 Squadron.

Soesterberg in Denmark on 3 August, appear to have been a dubious use of resources. In relation to the Aalborg raid on 6 August, Eric Chandler reveals that his squadron 'went in at the wrong height with no cloud cover' (despite having been promised it) and that as a result many did not get back.⁵³⁸ Furthermore, the many night raids during these months requiring crews to fly deep into Germany to attack factories in the Ruhr and oil refineries, (e.g., Hamburg on 29 July), or against cities such as Berlin (e.g., on 4 September), probably achieved little and yet inevitably incurred losses. Douglas Parry, for example, a Bristol Blenheim Mk IV pilot who participated in numerous night raids to the Ruhr in the Autumn of 1940 recalls that on many raids there were large quantities of 'anti-aircraft fire and searchlights' and that he much preferred low-level day light raids because at least they had some idea whether they had hit the target.⁵³⁹ The Berlin raid also seems a particularly dubious use of two squadrons of Bristol Blenheim's, given that 103 Wellington's and Whitley's (each carrying over 3,000lbs of bombs) had attacked Berlin on the night of 27/28 August, inflicting little damage.⁵⁴⁰

The same appears true of many of the missions undertaken during these same months by the Fairey Battle squadrons of No.1.Group. These were ordered by Portal (in the absence of an invasion attempt) to focus upon aerodromes and oil targets in Holland, Belgium and France in July 1940. This involved them being sent on a variety of (largely night time) raids, which were unlikely to have inflicted much damage and yet which incurred casualties. These included the raid on an oil storage facility at Rotterdam on the night of 21/22 July and then a number of raids on German airfields in occupied territory, such as Hinegene and Evere, at the very end of that month.⁵⁴¹ However, as Herbert Spiller explains, flying the Fairey Battle at night was 'not to be recommended' because the flames from the exhaust pipes either side of the fuselage interfered with the pilot's night vision and thus could make landings in darkness a real challenge.⁵⁴² Furthermore, even getting to the target at night was problematic. The war diary of No.1. Group for 27 July 1940, states that, 'It appears that our Battles are either not suitable for the difficult tasks allotted to them...or that crews are not sufficiently well trained for night

⁵³⁸ IWM Sound Archive, No. 11036, Eric Chandler, Air Gunner (later Flight Lieutenant), Bristol Blenheim, No.107 Squadron.

⁵³⁹ IWM Sound Archive, No. 15354/1, Douglas Parry, Wing Commander, Bristol Blenheim, No.110 Squadron.

⁵⁴⁰ H. Koch, *The Strategic Air Offensive Against Germany: The Early Phase, May – September 1940*, *The Historical Journal*, Vol.34, No.1. (March 1998), pp. 117-141.

⁵⁴¹ TNA- AIR 14/674, Directives to No. 1. Group, Order from Air Marshal Portal, Air Officer Commanding, Chief Bomber Command, to Headquarters No.1. Group, dated 17 July 1940.

⁵⁴² IWM, Sound Archive, No. 7477/1, Herbert Spiller, NCO, Fairey Battle, No. 12 Squadron.

flights of this nature.’⁵⁴³ Also, as if to prove this again, on the night of 31 July, six Fairey Battles of No.12 squadron headed out to attack a target simply referred to as ‘Z.61’. One was accidentally shot down by a British fighter off Skegness, two aborted due to mechanical/wireless failures and the three that reached the target area failed to locate the actual target owing to bad visibility, so jettisoned their bombs at sea.⁵⁴⁴ Indeed, arguably the only bombing raids by the light bombers of No.1 and No.2 Groups that did achieve something tangible in the summer of 1940, were the attacks made on the German invasion barges in channel ports, in September. However, the number of sorties they flew to destroy barges and the tonnage dropped is dwarfed by those also undertaken by the three Groups of heavy bombers.⁵⁴⁵

But the real problem with the continued use of the light bombers on raids over enemy territory was the cumulative loss of what tactical low-level missions required above all else, experienced aircrews. Even those that were still alive by September 1940 would in many cases have been suffering from a fatigue that may well have degraded their ability to support troops in the event of an invasion - in the face of (most likely) considerable Luftwaffe opposition. As Wing Commander Douglas Perry admits, No.110 Squadron (Bristol Blenheim’s) had a small number of men classified as ‘Lack of Moral Fibre’ (LMF), as the summer months of 1940 progressed largely, he states, because ‘people had been on operations too long’.⁵⁴⁶ Also, replacement light bomber aircrew took a long time to train. For example, Edward Sismore, an observer (or navigator) on a Bristol Blenheim with No.110 Squadron, spent some eighteen months being trained before joining an operational squadron in February 1941. This included time at an Initial Training Wing at Hastings, followed by basic navigation training at Prestwick (including considerable amounts of meteorology), followed by gunnery and bombing training at Penross and finally, operational training at Upwood.⁵⁴⁷ And the training was similarly comprehensive for radio operators/gunners. In his detailed account, Eric Chandler, a radio operator/gunner on a Bristol Blenheim, demonstrates just what a skilled job this was. His role on operations, for example, required him to ensure that the transmitter (a source of vital homing

⁵⁴³ TNA AIR 25/4 Operations Record Book, No.1. Group (Appendices), Operational Report from No.1. Group, 3 September 1940.

⁵⁴⁴ TNA AIR 25/4 Operations Record Book, No.1. Group (Appendices), memo from No.1. Group to HQ, Bomber Command, Summary of Night Operations 31 July/1 August 1940.

⁵⁴⁵ Middlebrook and Everitt, *The Bomber Command War Diaries*, pp. 58-91.

⁵⁴⁶ IWM Sound Archive, No. 15354/1, Douglas Parry, Wing Commander, Bristol Blenheim, No. 110 Squadron.

⁵⁴⁷ IWM, Sound Archive, No. 15145/1, Air Commodore Edward Sismore, observer (navigator), Bristol Blenheim, No. 110 squadron, 1940.

bearings and fixes), was kept functioning during each flight, something which involved laboriously re-charging the accumulators that powered it. He also had to change frequencies regularly – something which involved having to, ‘back- tune the transmitter and to put in different coils.’⁵⁴⁸ Thus, the challenge of replacing the vital experience lost within the light bomber squadrons as losses mounted in the summer of 1940, was considerable. Above all, the high attrition rates amongst these air-crew undoubtedly reduced the overall capability of the Bristol Blenheim and Fairey Battle squadrons to undertake the highly-skilled and dangerous task of low-level tactical air support against an enemy as professional as the Wehrmacht.

The only area where genuine co-operation could be said to have existed between the Army and the Royal Air Force in relation to tactical air support, were the nine so-called Army Co-operation Squadrons. These were allocated across the Home Forces regional command structure and were largely populated by the same Westland Lysander aircraft that had provided reconnaissance to the British Expeditionary Force in France – and which had proved vulnerable. That said, the Air Force had since made them a priority for an upgrade, involving self-sealing fuel tanks, armour and the option of a 20mm cannon or bombs.⁵⁴⁹ However, despite these forces being the only aircraft actually under the command of GHQ Home Forces, their ability to make much impact upon an invasion, or to have subsequently provided ground support to troops in the Kent and Sussex countryside would have been extremely limited. Indeed, even with their modifications the Lysanders continued to be viewed by GHQ Home Forces as essentially a tactical reconnaissance resource.⁵⁵⁰ Furthermore, as the Battle of Britain got underway, many Westland Lysander pilots were pulled into Fighter Command’s pilot training program or into air-sea rescue duties. War Office files from Southern Command, for example, show the further frustration felt by Lieutenant-General Sir Claude Auchinleck when his Army Co-operation pilots were transferred to fighter pilot training courses. In a note to GHQ Home Forces in late September 1940, he complained that only eight pilots were now left in No. 225 (Army Co-operation) Squadron and that even these were about to be pulled off into Fighter Command, ‘with only a vague assurance that they will be handed back in the event of an invasion’.⁵⁵¹ Army Co-operation Command was finally established on 17 November 1940,

⁵⁴⁸ IWM, Sound Archive, No. 11036/1, Eric Chandler, Air Gunner (later a Flight Lieutenant), Bristol Blenheim, No. 107 Squadron.

⁵⁴⁹ TNA, WO 199/1764 Southern Command, Allocation of Army Co-operation Squadrons, June 1940 – Jan 1941.

⁵⁵⁰ TNA, AIR39/49, Paper from Senior Air Officer, GHQ Home Forces, to HQ’s of each Regional Command, entitled; *Employment of A.C. Squadrons Allotted to Army Co-operation*, dated 23 June 1940, p. 1.

⁵⁵¹ TNA, WO 199/1764, Southern Command, Allocation of Army Co-operation Squadrons, June 1940 – Jan 1941, Note from Lieutenant-General Sir Claude Auchinleck to GHQ Home Forces, dated 23 September 1940.

at the request of the War Office.⁵⁵² However, even with this new command in place the efforts of the Army Co-operation squadrons, populated as they mainly were in September 1940 by Westland Lysander aircraft, were heavily focused upon reconnaissance rather than the type of tactical air support the Home Forces would have required in the event of landings by German forces. It is also worth noting that Brooke himself, at a meeting at the War Office in December 1940, expressed concern at the planned use of these aircraft in any anti-invasion role without a fighter escort.⁵⁵³

Nor were the ‘heavy’ bombers of No’s 3, 4 and 5 Groups, particularly suitable for tactical air support, especially in daylight and at low level. The crews of these aircraft would doubtless have done what they could to bomb an invading force on the beaches, (within the constraints of the large civilian population still residing in Kent and Sussex) but, by September, the twenty squadrons of Handley Page Hampden’s, Armstrong Whitley’s and Vickers Wellington’s had effectively become a night bomber force and thus would probably have attacked beaches and bridgeheads during the hours of darkness – with (most likely) limited accuracy. Yet, one heavy bomber in particular, the Handley Page Hampden, was considered to have a reasonable low-level capability, given that it was relatively speaking both fast and manoeuvrable. As such it had been used on a limited number of daylight tactical operations during the Battle of France – for example, when No.49 Squadron had been sent to attack a crossroads north of Amiens on 8 June 1940 and a railway line at Lille on 11 June. The squadron was also involved in three of the costly, but ultimately successful, ultra-low level night raids to drop mines on the Dortmund-Ems canal in August 1940 – a good example of precision capability even at night and under heavy fire.⁵⁵⁴ Even without the benefit of hindsight, practicing the exploitation of this low-level capability, alongside the Army, around the beaches and inland towns of Kent and Sussex, might have been a better use of some of the seven squadrons of Handley Page Hampdens, as the threat of invasion reached its peak, than the long-distance night raids into Germany that accounted for much of their contribution at the time when they weren’t bombing barges in channel ports. For instance, on one long mission to Leipzig in August 1940 to bomb an oil

⁵⁵² For more information on the formation of Army Co-operation Command see; TNA, WO 233/60, Draft Report dated 10 June 1945, by Lieutenant-Colonel C. Carrington entitled; *Air Support for the Army, 1939-1945*, Chapter V, Army-Co-operation Command, 1940-1943. Also, see; TNA, AIR 20/ 4301, R.A.F. and Army Co-operation October 1940 – December 1944, document entitled; *Proposals for an Army Co-operation Command*.

⁵⁵³ TNA, WO 106/5162, Development of Close Support Action by Bombers: Report on Trials in Northern Ireland, August 1940 – April 1941, minutes of meeting at War Office on 10 December 1940.

⁵⁵⁴ IWM Sound Archive 12805/2, Thomas Murray, Wing Commander, Handley Page Hampden, No. 49 Squadron (No.5 Group).

plant, Maurice Stretton a pilot with No.49 Squadron, recalls that ‘the meteorological information we’d given was so bad that we found we’d been blown over the Ruhr as we came back and got caught by flak’

Crucially though, when assessing the capability of the heavy bomber force to provide tactical air support in the event of an invasion, it is important to understand the increasing pressure that the Royal Air Force was under, by September 1940, to demonstrate the validity of its ‘doctrine’ that strategic bombing could play a major role in defeating Germany, not least by bringing industrial production on the Ruhr to a standstill.⁵⁵⁵ Thus, under Portal’s auspices and focusing mainly now upon night raids following early daylight losses, Bomber Command carried out missions on 138 separate nights against German targets between mid-May and late September 1940. Each raid rarely involved less than 150 ‘heavy’ bombers, albeit often spread across numerous different targets.⁵⁵⁶ The results of all these raids were, in fairness, hard to assess other than by reports of the crews themselves, but the positive conclusions drawn at the time by Portal and circulated upwards proved highly over-stated when, in mid-1941, they were scrutinised as part of the Butt Report (commissioned by the Cabinet Office) – which concluded that only one in three of the aircraft recorded as attacking a particular target had got its bombs within five miles of that target. But even back in mid-1940, the desire to be seen to be achieving something important can be detected in the somewhat vague reports by the Royal Air Force on its activities that were included in the weekly résumés of the war’s progress, prepared for the War Cabinet and the Chiefs of Staff Committee. In one such résumé, in late August 1940, at a time when the Battle of Britain was reaching its peak and an invasion was expected imminently it is noted that, thanks to Bomber Command’s efforts, the *Machinenbau Werke* in Hamburg (producing high-grade steel) had been, ‘damaged’, and that, ‘dislocation’ had been caused to the *Dornier Works* at Wismar.⁵⁵⁷ The following week’s résumé states that a magneto works in Stuttgart and an aluminium works at Bitterfeld were ‘successfully attacked’, but no details of the extent of this success are given.⁵⁵⁸ An indication of the pressure Portal faced personally, can be seen in the terse note Churchill sent him in November 1940, criticising what he

⁵⁵⁵ TNA, WO AIR 9/79, paper entitled, *Bomber Command Planning*, dated October 1939.

⁵⁵⁶ Middlebrook and Everitt, *The Bomber Command War Diaries, An Operational Reference Book, 1939-1945*, (Leicester: Midland Publishing, 1996), pp. 42-86.

⁵⁵⁷ TNA CAB 80/17/3, War Cabinet: Chiefs of Staff Committee, Memoranda Nos. 651 – 700, *Weekly Résumé of the Naval, Military and Air Situation (No.52)*, 22 August to 29 August 1940, p. 18, Appendix VI, Attacks on Enemy Territory in Europe: Extracts from Recent Raid Assessment Reports.

⁵⁵⁸ TNA, CAB 80/17, War Cabinet; Chiefs of Staff Committee, Memoranda 701-750, C.O.S. (40) 716, *Weekly Résumé (No. 53) of the Naval, Military and Air Situation*, 29 August to 5 September 1940, paragraph 43.

considered was, ‘The lamentably small tonnage of bombs dropped on Germany given the amount of money and materials devoted to it.’⁵⁵⁹ This must have been a bitter blow for Portal swallow, especially given the pressure from Brooke for Bomber Command to devote ever more of its resources to tactical air support instead.⁵⁶⁰ In summary then, Britain’s heavy bomber force would have struggled to perform a meaningful daylight tactical support role in the event of an invasion and this was also the conclusion that the German High Command had reached by September 1940 - according to research commissioned by the Cabinet Office at the end of the war.⁵⁶¹

Nor, would Fighter Command have been able to add much from a tactical air support standpoint by the time the invasion threat peaked. Not only were its forces, especially those of 11 Group, already fully occupied fighting the Luftwaffe but, between 1 and 7 September, the Luftwaffe had according to H. R. Allen study, achieved ‘local air supremacy over the invasion area’.⁵⁶² Furthermore, he concludes that by this stage the Royal Air Force was arguably starting to lose the battle. It is beyond parameters of this study to explore the validity of this claim other than to note that Air Marshal Dowding clearly thought that the tide had turned against Fighter Command by 7 September, given that on that day he convened a meeting with the Deputy Chief of the Air Staff and the two key Group commanders at which he underlined that, in the face of pilot losses now running at 120 per week and with only inexperienced pilots with which to replace them, ‘We are going downhill’.⁵⁶³ Thus, his enthusiasm to divert his hard-pressed squadrons into a ground support role in the event of an invasion would have been limited

Even if that had not been the case, Fighter Command’s single-seat fighters were not yet equipped with the rockets, cannons, large calibre machine guns, or bomb racks that would have enabled them to play a meaningful ground support role.⁵⁶⁴ Furthermore, Hurricanes and Spitfires were seen by Fighter Command primarily as interceptors rather than a resource suited

⁵⁵⁹ Christchurch College Oxford, Portal papers, Folder 1/File1, Churchill to Portal, 1 November 1940.

⁵⁶⁰ IWM Sound Archive No. 3782/6, Maurice Stretton, Sergeant Pilot, Handley Page Hampden, No.49 Squadron (No.5 Group).

⁵⁶¹ TNA, CAB 101/347, German Military Preparations for Operation Sea Lion; paper entitled; *Sea Lion, 1940, German Estimates of the British Army, July to September 1940*, documentary evidence; Appendix B – (Summary of Appendix 1 of 16 Army’s Preliminary Instruction for ‘Sea Lion’, dated 9 September 1940) – [16 Army file no. 14/558 (3)]

⁵⁶² Hubert Allen, *Who won the Battle of Britain?* (London: Arthur Baker, 1974, p 188.

⁵⁶³ James Holland, *The Battle of Britain: Five Months That Changed History, May - October 1940*, (London: Bantam Press, 2010), p. 1313.

⁵⁶⁴ TNA, WO 233/60 (Unpublished) draft History of Tactical Support, 1939-1945, dated 10 June 1945, by Lt. Col. C. Carrington, Home Force Liaison Officer, Chapter VI, Close Support: Training and Development.

to ground attack. This perception at the time of what a fighter could and could not do well was echoed by one Hurricane pilot, Harold Bird-Wilson (who went on to become an Air Vice Marshal). According to him, ‘The Hurricane was an interceptor, it wasn’t a ground attack aircraft as defined in those days and we weren’t really trained for army co-operation.’⁵⁶⁵ This attitude would have surprised one of the senior Luftwaffe officers in northern France, Adolf Galland. After the war he stated his surprise that, in the summer of 1940, Fighter Command hadn’t regularly sent its aircraft to strafe German airfields at low-level, as his planes were preparing to take off.⁵⁶⁶ However, providing tactical support to the Army would have been well down the priority list for Fighter Command in the event of an invasion, given that its orders were, in addition to attacking German bombers, to focus upon protecting The Royal Navy in the channel against bomber attack – something the Admiralty already felt the Air Force had been slow to appreciate the need for.⁵⁶⁷ Another key priority for fighters in the event of landings would was to attack Luftwaffe transport aircraft that in the words of a memo from the Air Ministry to Fighter Command Headquarters, dated 29 June 1940, ‘may convey parachutists’. It is noteworthy that only in the last paragraph of this memo does it state that, in certain circumstances, ‘a justifiable diversion of fighter effort might be made in low flying attacks against enemy taking-off places where enemy troops emplane.’⁵⁶⁸ After transport aircraft, the priority was to protect Bomber Command’s aircraft as they attacked German forces on the ground – something likely to have consumed most of what spare fighters there were.⁵⁶⁹ Thus, although many Army units from XII Corps in Kent and Sussex, spent much of the summer of 1940 watching the Battle of Britain unfold in the skies above them, they would have been unlikely to have witnessed many Spitfires or Hurricanes attacking invading German forces at tree-top height in the vital, first twenty-four hours of an invasion.

In conclusion then, had an invasion occurred and then resulted in the establishment of a bridgehead extending deep into the Kent and Sussex countryside, thus necessitating a significant counter-attacking engagement, the capability of much of the Army’s equipment and of the Air Force’s ground attack aircraft, never mind the shortages of both, would most likely

⁵⁶⁵ IWM, Sound Archive, No.10093/1, Harold Bird-Wilson, Pilot, Hurricane squadron.

⁵⁶⁶ Allen, *Battle of Britain*, p 134.

⁵⁶⁷ TNA - AIR 2/2710, Air Action in the Event of Sea-Borne Invasion of the UK, May to September 1940, minutes of Chiefs of Staff Committee, 26 July 1940.

⁵⁶⁸ Ibid., memo from Air Commodore D. Stevens, Director of Home Operations, Air Ministry, to Officer Commanding in Chief, Headquarters, Fighter Command, entitled; *Employment of Fighters in the event of Enemy Invasion*, 29 June 1940.

⁵⁶⁹ TNA, AIR 39/49, Paper entitled; *Fighter Command Orders in the Event of an Invasion*, dated 26 June 1940.

have become an overriding and (perhaps) fatal issue. As has been shown, category by category, in September 1940 the paucity of almost every aspect of military equipment and the relatively low calibre of much of that equipment, might well have terminally undermined the huge effort the Home Forces would doubtless have made to repel a serious invasion attempt. The overall losses of materiel in France were simply too huge to have been redeemed only a few months later and even before the campaign began the British Expeditionary Force had suffered from many well-documented equipment shortages, the reasons for which extended back to rearmament decisions taken by successive governments between 1934 and 1937. These had prioritised the achievement of ‘parity’ between the Royal Air Force and the fast-growing Luftwaffe above all else.⁵⁷⁰ This decision was, it should be recalled, taken in the light of mounting public pressure for improved air defences.⁵⁷¹

Furthermore, the decision by Chamberlain’s government in 1937 to pursue (briefly) a policy of not engaging in a future continental land battle, reduced Army funding yet further, especially in relation to the development of modern armoured fighting vehicles. Also, the government’s continued appetite, in the mid-1930s, to expand the Royal Navy, largely to address the multitude of emerging threats to Britain’s overseas empire, further diminished spending levels on the Army. Thus, as David French concludes in his study in 2000, between 1934 and 1939, only 22% of military spending went to the Army.⁵⁷² Furthermore, Alan Allport concludes that, between 1934 and 1939, the rearmament program emphasised naval and air power, whilst ‘treating land power as a third and rather regrettable adjunct to these two’.⁵⁷³ Also, he is clear that it was Chamberlain more than anyone else who, ‘objected to any proposal to equip a ‘field force’ to fight in continental Europe alongside the French’, until 1939.⁵⁷⁴ That equipment shortages bedeviled the Army as the invasion crisis peaked, is thus not surprising and nor is it in doubt. But, the true extent of the shortages, especially amongst the formations that would have been tasked with repelling an invasion appears to be open to some debate – especially in the light of the earlier exploration of the actual numbers of Bren guns within XII Corps and the GHQ Reserve, in relation to Churchill’s own assessment – that was itself presumably based

⁵⁷⁰ For a detailed analysis of this issue, see the recommendations of the Ministerial Committee on Defence Requirements, for April and May 1935.

⁵⁷¹ Gaines Post, ‘Mad Dogs and Englishmen: British Rearmament, Deterrence and Appeasement, 1934-1935’, *Armed Forces & Society*, Vol.14, No. 3 (Spring 1988), pp. 329-357 (p. 335).

⁵⁷² David French, *Raising Churchill’s Army*, p. 106.

⁵⁷³ Alan Allport, *Britain at Bay, The Epic Story of the Second World War: 1938-1941*, (London: Profile Books, 2020), p. 140.

⁵⁷⁴ *Ibid*, p. 143.

upon on War Office figures. The key point though is that, as has been shown, the forces tasked with repelling an invasion were not as fully equipped as they might have been in most weapons categories, but particularly when it came to light machine guns, anti-tank guns, artillery, armoured vehicles, and modern anti-aircraft weapons.

But, as with Bren guns, could the real situation across XII Corps and the GHQ Reserve have been even worse than has been thought up to now? Were the figures from units ‘on the ground’ in fact more pessimistic than the Churchill’s numbers – summarised in Appendix II? Robust evidence to prove this, even from within the relevant War Office directorate, has been hard to find. But one example, recorded by General Sir James Marshall-Cornwall, demonstrates that, at the very least, Churchill’s equipment figures may need to be taken with a ‘pinch of salt’. In early July 1940, Marshall-Cornwall, as the new Commander of III Corps (and previously the author of the Army’s official report into the British Expeditionary Forces in France between 1 and 14 June), was invited to attend a dinner at Chequers – which he recorded in his memoirs. It was also attended by Lord Beaverbrook, Lieutenant-General Sir John Dill and Lieutenant-General Ismay. During the meal, Churchill asked Marshall-Cornwall about the readiness of his forces and having been informed that III Corps was still short of equipment, he immediately consulted some papers in front of him and replied that, according to his figures, III Corps’ two component divisions, 53 (Welsh) Division and 2 (London) Division, were 100% complete in terms of men, rifles and mortars and 50% complete in relation to field artillery and machine guns. When Marshall-Cornwall insisted this not the case, Churchill, ‘Hurlled the graphs across the dinner table’ and ordered Dill to have the figures checked by the morning.⁵⁷⁵

This is only one incident but, if nothing else, it demonstrates Churchill’s sensitivity to whole subject of equipment levels amongst those units defending Britain’s shores in 1940 and perhaps goes some way to explain the reason he included such detailed numbers in his post-war writings. Further evidence of the Prime Minister’s sensitivity around equipment levels can be seen in the note he wrote to both Dill and Eden on 11 January 1941, effectively asking for Brooke to be reprimanded, following his performance at a meeting of the so-called ‘Commanders-in-Chief Meeting’, the day before. This was a forum of around fifty very senior officers and was chaired by Churchill himself. In Churchill’s eyes, Brooke had focused too

⁵⁷⁵ General Sir James Marshall-Cornwall, *Wars and Rumours of Wars*, (London, Secker & Warburg, 1984), pp. 168-170.

much upon equipment shortages, rather than how much better the equipment situation was in comparison with six months previously and also what his plans now were for using the forces he had to launch mobile counter-attacks to repel landings.⁵⁷⁶ Brooke also refers to this dressing down in his 1954 memoir, *Notes on my Life*, with the defiant attitude that his message might have been unpalatable to Churchill, but that he had only been doing his job in reiterating to the senior commanders present just how bad the equipment situation still was in January 1941.⁵⁷⁷ This sensitivity, (and the wording of Churchill's note is terse to say the least), may go some way to explaining why he went to such lengths in *Their Finest Hour*, to show that the overall equipment situation amongst infantry divisions in the UK in September 1940, was better than some of the British public might have assumed at the time. Given the question marks raised earlier about Bren gun numbers, if more robust 'bottom up' information was only available for true equipment levels across each of the six infantry divisions (plus the three independent infantry brigades) that sat within XII Corps and the GHQ Reserve, the conclusions as to what those troops actually had to fight with, in September 1940, might well be very different to what, (thanks largely to Churchill), has been repeated over the years within many of the secondary sources. However, even just using Churchill's analysis, equipment levels would have reduced 'fighting capability' significantly where it mattered most, in the event of an invasion.

Furthermore the situation would most likely not have been salvaged by the intervention of the Royal Air Force, given the lack of aircraft specifically designed for tactical air support, the communication challenges of 'calling in' air support in 1940 and the fact that the light bomber force was prevented from practicing ground support to any great extent due to the continuing requirement for it to carry out bombing operations over occupied territory, something which led to a steady attrition of valuable aircraft and precious aircrew. Indeed, as Chapter Three will explore, even at the peak of the invasion crisis the Air Force possessed a strong conviction that aircraft were simply too valuable to be used as a battlefield weapon at all.

⁵⁷⁶ TNA, PREM 3/10, Meetings of Commanders-in-Chief, October 1940 to January 1941, note from Churchill to both Eden and Dill, dated 11 January 1941.

⁵⁷⁷ LHCMA, Alanbrooke: 5/2/16, 'Notes on my Life', Volume IV, Home Forces 1940 to 1941, dated 1954, p. 250.

Training

Within the ‘Model of Fighting Power’, training is defined as; ‘the provision of training that is continuous, challenging, realistic, has clear objectives and is reflective of operational doctrine’.⁵⁷⁸ As will be demonstrated, it would be fair to say that is not an accurate description of the state of training within the British Army in the years immediately prior to the Second World War. This is hardly surprising, given the relative lack of funds made available to the Army during the inter-war years that has already been discussed and which led to the Army being at what Brian Bond describes as ‘a low ebb’, when Chamberlain became Prime Minister in May 1937 and Leslie Hore-Belisha became Secretary of State for War.⁵⁷⁹ Indeed, it can be argued that the lack of both equipment and training did not start to be properly addressed until March 1939 when Hore-Belisha, in his Defence Estimates speech, admitted to the urgent need for Britain to be prepared to fight on the continent. This heralded not just a commitment to a British Expeditionary Force of four regular divisions, two armoured divisions and thirteen territorial divisions but also, crucially, to an increase in the budgets for training.⁵⁸⁰

Before examining the training exercises that the Army subsequently undertook in France before May 1940 and the larger-scale and more combined arms exercises that began to take place in Britain in the summer of the same year as the perceived threat of invasion grew, it is useful to explore briefly the basic training that ordinary soldiers and young officers typically received prior to 1940 along, with what was taught to officers at the Staff College – given that this would have formed the foundation blocks upon which broader formation training was based. For in the opinion of David French, the principal cause of the Army’s difficulties in undertaking combined arms operations as the war began was that, ‘it had failed to train sufficiently thoroughly to do so before 1939.’⁵⁸¹

The three months of basic training that soldiers experienced before the start of the war were typically focused upon drill, physical fitness, and some elements of weapons training. That said, even those joining regular formations often found that basic training contained little in

⁵⁷⁸ The ‘Fighting Power Model’ is laid out in; *Land Operations*, Land Warfare Development Centre, British Army Doctrine Publication, AC 71940.

⁵⁷⁹ Brian Bond, ‘Leslie Hore-Belisha at the War Office’, in *Politicians and Defence: Studies in the Formulation of British Defence Policy 1845 – 1940*, ed. by Ian Beckett and John Gooch (Manchester: Manchester University Press, 1981), pp. 110 – 130, (p. 110).

⁵⁸⁰ *Ibid.*, p. 121.

⁵⁸¹ David French *Raising Churchill’s Army*, p. 169.

the way of weapons training, if the experiences of Leslie Ridoubt who completed his basic training at Frome in July 1939 are anything to go by.⁵⁸² Furthermore, by 1940, some basic training courses had been cut to two months, presumably in response to the large waves of new conscript recruits that needed to be trained. For instance Geoffrey Bird, having joined the Army as a private soldier, spent just eight weeks at a training camp at Bruton but he did at least learn how to strip and reassemble a Bren gun.⁵⁸³ But a larger issue concerned the training of officers which David French examines and concludes that junior officers in the British Army were simply not taught enough about platoon tactics – unlike their German counter-parts whose early training focused upon how to command at least one level up. According to French, this gave German officers a greater common understanding of their Army’s tactical doctrine.⁵⁸⁴

This marked difference between the two countries was further reinforced by the training offered to the officers selected for their respective Staff Colleges. Thus, according to Edward Smalley’s exhaustive study, the British Army’s Staff College before the Second World War provided a broad program of study that included divisional staff and command duties, plus corps and army operations, overlaid with wider strategic issues.⁵⁸⁵ By contrast, he describes the German Staff College as having had ‘greater clarity of purpose’, with its greater emphasis upon exercises designed to embed the German Army’s tactical and operational approach to waging war.⁵⁸⁶ Perhaps most telling is a further conclusion that, ‘Camberley never replicated the pressures of the combat environment.’⁵⁸⁷ Thus, before September 1939, the early stages of training for both officers and other ranks did not focus much upon the doctrine by which the British Army would fight. Nor did high-potential officers concentrate upon combined arms warfare at Staff College - even though as Chapter Three will examine, this was clearly laid out in the Field Service Regulations at the time.⁵⁸⁸

⁵⁸² IWM, Sound Archive, No. 22915/1, Leslie Ridout, NCO, 2nd Battalion, Dorset Regiment, 5 Infantry Brigade, 2 Division.

⁵⁸³ IWM, Document Archive, No. 27241 Major Geoffrey Bird, 14th Bn, Royal Hampshire Regt, memoir entitled, *An Unintentional Soldier*, p. 2.

⁵⁸⁴ David French *Raising Churchill’s Army*, p. 58.

⁵⁸⁵ Edward Smalley, ‘Qualified, but Unprepared: Training for War at the Staff College in the 1930s’, *British Journal for Military History*, Volume. 2, Issue No.1, (November 2015), 55-72 (p.55).

⁵⁸⁶ *Ibid.*, p. 60.

⁵⁸⁷ *Ibid.*, p. 71.

⁵⁸⁸ War Office, Field Service Regulations, Volume III (Operations Higher Formations), and Volume II (Operations General), dated 31 December 1935.

Thus, it is perhaps not surprising that in analysis of the British Expeditionary Force, Edward Smalley describes the British Army's training philosophy as being 'flimsy', 'complacent' and involving too many training exercises that lacked realism. In his view, the Army also lacked what he calls a 'centralised matrix' for assessing the effectiveness of its training programs.⁵⁸⁹ As an example of this complacency, he comments that the 8th Battalion of the Worcestershire Regiment always used Windmill Hill on Salisbury Plain for its annual training camp throughout the 1930s, with the result that its officers became 'over-familiar with the topography and thus required merely good memories rather than a good grasp of military principles'.⁵⁹⁰

Smalley contrasts this with the huge combined-arms exercise that Lieutenant-General Edmund Ironside attended (as part of a British delegation) in Germany on 26 September 1937, involving some 800 tanks and 400 aircraft attacking defensive positions, in which several very senior German commanders actively participated. In doing so these commanders gained a level of practical experience of high intensity warfare that, according to Smalley, no senior British commander gained between 1936 and 1939.⁵⁹¹ Furthermore, he underlines that the German Army had a much more centralised approach to tactical training, which meant that from the start of the war its officer corps adhered strictly to one common set of tactics – something which was inherently harder for the British Army to do given its need to carry out multiple tasks, including the policing of its empire.

Once the war began, the result of this underinvestment in training on the part of the British Army became evident, especially amongst the territorial divisions that made up most of the forces that went to Norway and a large proportion of the British Expeditionary Forces in France (which containing six 'first-line' and 'second-line' territorial divisions and five regular divisions). Thus Lieutenant-General Sir Claude Auchinleck, in his report on the Norwegian campaign, underlined numerous deficiencies that he believed had allowed British formations to be, 'outmanoeuvred and outfought', constantly during the conflict. In particular, he emphasised the general lack of training amongst the (territorial) formations under his command – and the specific lack of a universal approach to battlefield 'tactics'.⁵⁹² Furthermore, when

⁵⁸⁹ Smalley, *The British Expeditionary Force, 1939-1940*, pp. 46-50.

⁵⁹⁰ *Ibid.*

⁵⁹¹ *Ibid.*

⁵⁹² TNA, WO 106/1962, Lieutenant-General Auchinleck's First Report from Norway, May-June 1940, Extracts from a letter marked 'secret and personal' from Lieutenant-General Auchinleck to the Chief of the Imperial General Staff, dated 30 May 1940.

the six territorial infantry divisions arrived in France in January 1940, each had only received around seven weeks of training – something that was often hard to address given that both territorial and regular forces found that their opportunity to train was reduced by the need to dig defensive positions through the hard winter on 1939/40 and by the constant need to ‘stand to’ in response to the perceived threats of imminent attack.⁵⁹³ This lack of training especially amongst the territorial divisions was spotted quickly by the French, with at least one French official dismissing them as, ‘barely trained divisions of questionable value.’⁵⁹⁴ Furthermore, the Wehrmacht’s assessment of the British Expeditionary Force in July 1940 (and investigated by the Cabinet Office after the war’s end) was adamant that, although the English soldiers they faced had been, ‘tough and dogged’ especially in defence, the territorial troops amongst them ‘were inferior to the regular troops in terms of training’.⁵⁹⁵

That said the narrative commonly expressed in the historiography, for example by David French, that the British Expeditionary Force in general (and the territorial forces in particular) failed to take advantage of the lull in operations in the winter of 1939-40 to train for the campaign in France, may not be the whole truth. For a start the point needs to be made that only some of the territorial divisions that fought with the British Expeditionary Force were even in France during that winter, given that some did not deploy to the continent until the spring of 1940. But also, by looking at a sample of territorial formations the view that little training took place in France can be challenged. An analysis of three territorial battalions from the Oxfordshire and Buckinghamshire Light Infantry, from 145 and 143 Brigades within 48 (South Midland) Division and commanded by (then) Major-General Andrew Thorne, reveals that a significant amount of training still took place before 10 May despite the constraints already mentioned. This included two brigade exercises in January 1940, one of which involved crossing the Deule canal with assault boats. In February, amongst other things, there was an exercise with infantry tanks (in fact carriers with flags had to suffice for actual tanks) and in March a divisional exercise took place in which 145 Brigade fought against 143 Brigade. Furthermore, on 27 March, a brigade ‘withdrawal exercise’ took place and on 25 April, there

⁵⁹³ P. Caddick-Adams, ‘Phoney War and “Blitzkrieg”’: The Territorial Army, 1939-1940,’ *RUSI Journal*, Vol.143 No.2, (April 1998), pp. 67-74.

⁵⁹⁴ W. Philpott and M. Alexander, ‘The French and the British Field Force: Moral Support or Material Contribution’, *The Journal of Military History*, Vol. 71, No. 3 (July 2007), pp. 743-772.

⁵⁹⁵ TNA, CAB 101/347, German Military Preparations for Operation Sea Lion; German Estimate of the British Army, July to December 1940, Paper Entitled; *Sea Lion, 1940, German Estimates of the British Army, July to September 1940*, Documentary Evidence; Appendix A, Report, dated 30 July 1940, by Wehrmacht’s IV Corps; *Experiences Gained in Action Against English Troops*.

was a brigade night exercise. In addition to all this the three battalions undertook numerous battalion-level exercises, especially in March and April 1940, doubtless in response to the growing threat of an attack. It is also worth noting that all of this training took place despite one of the battalions having to relocate to three different positions in the Lille area, (Wringles, Tourcing and then Hellemmes) - each move necessitating the digging of new defensive positions and anti-tank ditches. The fact that another of the battalions had to spend much of April 1940 press-ganged into pill-box construction would have been another constraint on the provision of training. Also, it is not clear from war diaries whether these exercises were rigid or flexible in their approach and crucially what significant lessons were learnt from them – let alone whether those lessons were then reiterated via subsequent training. But, on the face of it, based upon this sample there was no shortage of training focus within 48(South Midland) Division, certainly at the brigade level, before May 1940. It should also be noted that this division subsequently played a key role in defending the western side of the ‘Dunkirk corridor’ between 25 and 28 May during which time these three battalions of the Oxfordshire and Buckinghamshire Light Infantry fought with distinction at both Cassel and Hazebrouck.⁵⁹⁶ Thus the notion that this territorial formation was markedly under-trained appears questionable, even though larger-scale mobile combined arms training, which in any event should have taken place at the divisional level, appears to have been thin on the ground.

Interestingly, an examination the war diaries of a sample of battalions within Montgomery’s (regular) 3 Division suggests that this formation’s training regime in France was surprisingly like that of 48 (South Midland) Division, albeit that the former undertook more of these all-important divisional exercises. Indeed this may well be the reason why 3 Division’s training in advance of 10 May 1940 was considered at the time to represent ‘best practice’ – hence the fact that it has been captured as a case study within the contemporary British Army’s publication outlining its ‘Model of Fighting Power’.⁵⁹⁷ However, it is important not to over-estimate the amount of mobile combined arms counter-attacking that these divisional exercises allowed even 3 Division to practice, even though two such exercises (on the 13 December 1939 and again on 6 March 1940) involved tanks, lasted three days and involved advancing in

⁵⁹⁶ TNA, WO 167/804, war diary of 1st (Buckinghamshire) Battalion, WO 167/806, war diary of 4th Battalion and WO 167/805, war diary of 1st Battalion; Oxfordshire and Buckinghamshire Light Infantry, 48 (South Midland) Division, France 1940.

⁵⁹⁷ *Land Operations*, Land Warfare Development Centre, British Army Doctrine Publication, AC 71940, Chapter 3, Fighting Power, p. 3-17.

motorised transport by night to secure positions on a river.⁵⁹⁸ In reality, many of 3 Division's divisional exercises organised by Montgomery appear to have been, in the words of Lieutenant Humphrey Bredin of the Royal Ulster Rifles, primarily aimed at practicing how to 'rush forward and funnily enough, how to retreat as well'.⁵⁹⁹ Thus Divisional Exercise No. 4. on 29 March 1940, involved moving by night to the line of the River Canache and then withdrawing – not counter-attacking.⁶⁰⁰ Given the nature of the fighting that subsequently took place in May 1940 withdrawing at pace and in good order as a division via motorised transport was a very useful skill to have practiced. But this exercise does not appear to have had much of a truly combined arms counter-attacking dimension and no mention of that objective is to be found in the war dairies of the battalions within 7 Guards Brigade. Also, as Fred Hartle, an NCO with the King's Own Scottish Borderers concludes (shrewdly in the view of this study), 3 Division's numerous larger exercises near Arras in the spring of 1940 mainly involved advancing to rivers by lorry, digging in and then retiring at pace. This, he feels, taught them how to manoeuvre but it did little to enhance their ability to take the offensive. As he puts it, 'we always seemed to be holding rivers...or retiring...we never seemed to do any advance work.'⁶⁰¹ In summary then although both the quantity and the quality of training across the regular and front-line territorial forces in France in the winter of 1939 and spring of 1940 warrants a more detailed examination that lies outside the scope of this study, these two samples of the war diaries of regular and territorial infantry battalions appear to indicate that larger-scale divisional exercises, even within regular formations, sometimes provided less opportunity to practice genuine mobile combined arms warfare than has hitherto been assumed.

Back in the UK however and with Brooke in charge of the Home Forces, training in offensive combined arms mobile counter-attacking became the key priority for front-line forces. In his first conference of his regional commanders in early August, he emphasised that training should focus upon building capability in mobile offensive action in which, 'Armoured formations played a key role in creating situations that could be exploited by motorised

⁵⁹⁸ TNA, WO 167/700, war diary of 1st Battalion, Grenadier Guards, WO, 167/702, war diary of 2nd Battalion, Grenadier Guards and WO 177/698, war diary of 1st Battalion, Coldstream Guards, 7 Guards Brigade, 3 Division, France 1940.

⁵⁹⁹ IWM, Sound Archive, No. 12139/1, Humphrey Bredin, Officer, 2nd Battalion. Royal Ulster Rifles, 9 Brigade, 3 Division.

⁶⁰⁰ TNA, WO 167/791, war diary of 2nd (Machine Battalion), Middlesex Regiment, 3 Division, France, entry for 29 March 1940.

⁶⁰¹ IWM, Sound Archive, No. 22114/1, Fred Hartle, NCO, 1st King's Own Scottish Borderers, 9 Brigade, 3 Division.

infantry'.⁶⁰² He went on to state that large-scale exercises focused upon developing the capability to counter-attack with tanks, motorised infantry, artillery and aircraft working together, using wireless communications, as the German forces had demonstrated so effectively in France, should be the focus.⁶⁰³ It is worth noting at this point that such combined arms warfare was hardly new to the British Army – something which will be explored in greater detail in Chapter Three's examination of the so-called 'Conceptual Component' of Fighting Power. Suffice it to say here that the 'bare-bones' of combined arms offensive and defensive operations had already been laid down, at least in theory, in the Field Service Regulations of 1935, along with the principles of mobile counter-attacking by a so-called 'general reserve'.⁶⁰⁴ A short perusal of these Regulations reveals that the need for co-operation and planning between infantry, artillery, anti-tank guns, armoured forces and aircraft is emphasised, as is the need for mobility and the importance of conducting operations that an enemy least expects. In addition, (in Section 21 of Volume III) the specific use of tanks in the attack and the counter-attack is explored in some detail, with two alternative approaches laid out; the first involving tanks and infantry working closely together and the second focused upon tanks moving more independently and at pace to attack an enemy's flanks – supported by aircraft. The Field Service Regulations of 1935, which were still in force in the summer of 1939, laid out principles rather than detailed practical instructions and as Smalley rightly emphasises, contained 'little in the way of detailed examples of manoeuvres or when to enact them'.⁶⁰⁵

Thus, although the British did possess an agreed approach to combined arms warfare, it had not been embedded within the Army as a universally understood way of waging a modern war, mainly because of a lack of investment in proper training. It was this that Brooke set out to address with a major training initiative in the summer of 1940, despite the fact that many Home Forces formations, even in XII Corps and the GHQ Reserve, still found themselves committed to the time-consuming task of guarding the vast number of so-called 'vulnerable points' around the country – many of which were Royal Air Force bases – despite Brooke's lobbying of the War Cabinet in August 1940 to have this duty transferred to the Local Defence Volunteers.⁶⁰⁶ Thus, with the emphasis from the Headquarters of the Home Forces now upon conducting

⁶⁰² TNA, WO166/1, war diary of Home Forces HQ, Minutes of meeting with the G.O.C. of each Command on 6 August 1940.

⁶⁰³ Ibid.

⁶⁰⁴ War Office, Field Service Regulations, Volume III (Operations Higher Formations), Section 21, and Volume II (Operations General), dated 31 December 1935.

⁶⁰⁵ Smalley, *The British Expeditionary Force*, p. 57.

⁶⁰⁶ TNA, CAB 79/5/57, War Cabinet, Chiefs of Staff Committee minutes, 5 August 1940.

training exercises designed to promote offensive operations and mobility above all else, how did this translate to actual combined training on the ground in the summer of 1940, within the formations that would have been tasked with repelling an invasion?

Ambition or reality? An examination of combined arms training in the GHQ Reserve

The GHQ Reserve in the summer of 1940 badly needed the experience of larger-scale combined arms exercises focused upon mobile counter attacking, in order to increase its capability to repel an invasion. It is therefore noteworthy how few such exercises appear to have taken place during those months, at least according to divisional war diaries. That said, it should be underlined that information in war diaries in 1940 has proved to be often far from comprehensive or complete. Also, crucially, the validity and robustness of the larger-scale exercise scenarios on file in war diaries are hard to judge so long after the event. However, what we do know is that by December 1940 at another of his Commander-in-Chief's Conferences, Brooke lamented the 'paucity of large-scale exercises', that had been carried out up to that point despite all his efforts to make them happen.⁶⁰⁷ On this basis, actual capability at combined arms warfare at this operational level of warfare may not have increased all that much over the preceding few months – despite the huge priority attached to it by Brooke.

Looking primarily at war diaries, it can be seen that within IV Corps, 42 (East Lancashire) Division held a divisional exercise on 22 August 1940. During this exercise 59 Division played the part of the enemy along with Blenheim bombers from No.4 Army Cooperation squadron, who took the role of the Luftwaffe and 'dive-bombed' the division.⁶⁰⁸ Remarkably, a second divisional exercise followed only five days later, on 27 August, involving the three brigades travelling by buses to Didcott, then crossing the river in punts and finally, to quote the war diary, 'Routing the enemy.' How useful this proved at improving the capability to launch a combined arms counter-attack is hard to determine and nor is there evidence that this exercise helped to address some of the deficiencies that Brooke himself noted during his visit to 42 (East Lancashire) Division 17 September, after which he had concluded that, 'It is a good Division, which will require a good deal more training.'⁶⁰⁹

⁶⁰⁷ TNA, WO 199/3056, Minutes of the Home Forces Commander-in-Chief's Conference, 10 December 1940.

⁶⁰⁸ TNA, WO 166/494, war diary of 42 (East Lancashire) Division, General Staff, 1939-1940.

⁶⁰⁹ *War Diaries*, Alanbrooke, entry for 17 September 1940.

In addition to this, IV Corps organised a two-day corps exercise (Exercise Cambridge) in Hertfordshire on 30/31 August, during which 43 (Wessex) Division had an opportunity to practice fighting alongside tanks from 2 Armoured Division. However, it is clear from the subsequent report of the commanding officer of 43 (Wessex) Division, that much needed to be worked upon because of this exercise. He criticised march discipline, the poor lateral communications between 129 Infantry Brigade and 128 Infantry Brigade, the fact that 43 Division's infantry had accidentally shot at 2 Armoured Division as they withdrew at dusk. He also bemoaned the all-pervasive security (that forbid the marking of brigade HQ's during the exercise which had led to major traffic jams around Hitchin as traffic control police lacked the information needed to keep vital traffic flowing. Crucially, he also noted that commanders had taken too long to get orders out and that the Operation Orders for 129 Infantry Brigade had never reached its Brigadier at all.⁶¹⁰ These types of problems were doubtless exactly what a combined arms exercise was designed to expose, but there is little in 43 (Wessex) Division's war diary, nor in that of IV Corps, to underline that these issues were subsequently addressed. Sadly, given that this corps exercise took place just two weeks from what (with hindsight) was the peak of the perceived invasion crisis, addressing many of these learning points in time would have been somewhat challenging. Also, how much impact this large exercise had upon ordinary soldiers is difficult to determine, but it left little impression upon Henry Willmott, an NCO in the 4th Battalion, Dorset Regiment. In his testimony of that summer, he recalls being sent out into the Hertfordshire countryside to help with the harvest in August 1940 and then manning a Bren gun on the roof of St Alban's bus station when the blitz got underway in early September.⁶¹¹ But, assuming he was there, he makes no mention of participating in Exercise Cambridge at the end of August.⁶¹²

Inevitably, some larger-scale exercises were better than others. Over in VII Corps in Dorking, the (Canadian) Lieutenant-General McNaughton was blunt in his comments having observed an exercise on 3 September, around Elstead, also involving 20 Guards Brigade. He concluded that the exercise had not been properly studied beforehand and thus many of the

⁶¹⁰ TNA, WO 166/508, war diary of 43 (Wessex) Division, General Staff, 1939-1940, Note to 43 Division from GOC of 43 Division, Major-General R. V. Pollock entitled; IV Corps Exercise No.1., August 29/31, 1940.

⁶¹¹ IWM, Sound Archive, No. 22666/1, Henry Willmott, NCO, 4th Battalion, Dorset Regiment, 130 Brigade, 43 (Wessex Division).

⁶¹² WO 166/231, IV Corps, Intelligence, June 1940 - March 1941, Narrative for Exercise Cambridge 30/31 August 1940, Indexes No.6 and No.6A.

men involved in it would have learnt little.⁶¹³ How common this problem was would be very useful to establish, if only reliable data was available. What is obvious, though, is that some exercise scenarios appear (with hindsight) more realistic than others – something which probably contributed to their overall usefulness. Thus, the scenario that framed a large VII Corps (Canadian-led) exercise on 5 August was stark, but realistic. In essence, the Germans had invaded and despite numerous counterattacks had advanced inland with both armoured fighting vehicles and motorised infantry, right up to the line Guildford to Sevenoaks. They were now to be attacked by joint formations of 1 Canadian Division and 1 Army Tank Brigade.⁶¹⁴ By contrast, a further 42 (East Lancashire) divisional exercise took place on 27 September. The scenario for this involved three different imagined countries, *Bodley*, *Isis* and *Kingsland* (to be played by its three brigades), all fighting each other in a war of movement around the Oxford area. Conveniently perhaps, the exercise's instructions make clear that none of the three countries possessed any tanks.⁶¹⁵

Thankfully, within the GHQ Reserve, some training with actual tanks did occur in the summer of 1940, but it was infrequent in the lead up to the peak of the perceived invasion threat. And some of it occurred rather late in the day. For instance, within VII Corps, 44 Royal Tank Regiment, equipped with Mk II (Matilda) infantry tanks, conducted a number of exercises with the Canadian Infantry Division in late September.⁶¹⁶ Also, 21 Army Tank Brigade out on Salisbury Plain is known to have trained with 3 Division (from the GHQ 'deeper' Reserve) on numerous occasions during August and September – although no mention is made of this in any of the battalion war diaries of 7 Guard's Brigade that summer. Also, 21 Army Tank Brigade participated in a brigade signals exercise (with infantry involvement) on 22 August, which Sir Alan Brooke even witnessed.⁶¹⁷ There is also (some) evidence that exercises were organised to allow tanks to practice fighting against other tanks. Thus, on 8 October, 21 Army Tank Brigade undertook an exercise with 2 Armoured Brigade (playing the advancing enemy) which was designed to allow 21 Army Tank Brigade to practice 'delaying action' – something that

⁶¹³ WO 179/11, HQ Canadian Corps, General Staff, July to December 1940, *Activities of Lieutenant-General McNaughton on 3 September 1940*.

⁶¹⁴ TNA, WO 179/117, war diary of 48th Highlanders of Canada Regiment, December 1939 to December 1940, (1 Canadian Brigade, 1 Canadian Division, VII Corps, GHQ Reserve), Operational Order No. 5, 5 August 1940.

⁶¹⁵ TNA, WO166/445, WO166/4409, WO 166/976, war diaries of; 5th Battalion, Manchester Regiment, 6th Battalion, Lancashire Fusiliers and of 126 Brigade HQ, July to September 1940.

⁶¹⁶ A. G. Brown, *A history of the 44th Royal Tank Regiment 1939-1945*, (Brighton, The 44th Royal Tank Regiment Association, 1965), p. 5.

⁶¹⁷ TNA, WO166/1127, war diary of 21st Army Tank Brigade, August 1940.

would (presumably) have been hugely relevant had an invasion transpired.⁶¹⁸ But it would have to be said that, although there was a considerable amount of combined tank and infantry training (not least in the large corps exercises) during August and September 1940, it is not clear how much this constituted genuine combined arms training or how much it contributed to cementing one agreed way of how tanks and infantry should fight together - as Chapter Three will explore further. Nor is it obvious that these exercises with tanks were designed to address lessons learnt from 1 Armoured Division's bruising encounters against the Somme bridgeheads in France, or 1 Army Tank Brigade's exploits at the Battle of Arras.

What is also inescapable is that even in August and September 1940, some components of the GHQ Reserve had little exposure to the kind of exercises Brooke was calling for. Thus 3 Division, the only regular infantry formation in the GHQ Reserve, does not appear to have engaged in many large-scale divisional exercises designed to take the fight 'at scale' to the enemy. In fact, according to the war diaries of the three battalions within 7 Guard's Brigade, just one divisional exercise (presumably of the combined arms variety) took place - on 8 August. Also, it should be noted that all three of its battalions were tasked with digging a section of the so-called 'Green Stop Line' in Somerset for parts of September 1940, when they could have been training in combined arms.⁶¹⁹ Furthermore, 31 Independent Brigade, another regular formation based in Oxfordshire and classed as 'fully mobile' since 11 August, was busy training throughout that month before being moved down into southern Kent in late September to bolster defences. The war diary of one of its component battalions, the 1st Battalion, Royal Ulster Rifles, shows that 31 Brigade participated in one three-day brigade exercise which began on 28 August. However, there is no evidence in its war diary that 31 Brigade participated in any broader combined arms divisional schemes, or trained with tanks, before relocating into Kent to take on a potential front-line counter-attacking role.⁶²⁰

The truth is that the types of large-scale combined arms exercises that Brooke was calling for in August 1940 were not possible until 1941, not least because of shortages of equipment. But, with the immediate threat of invasion having possibly receded during the winter months of 1940/1941, Brooke was able to focus more upon improving the efficiency of the Army. Thus

⁶¹⁸ TNA, WO 166/1415, war diary of 42nd Royal Tank Regiment, September 19 - March 1941, entries for September 1940.

⁶¹⁹ TNA, WO 166/4097, war diary of 1st Battalion, Grenadier Guards; WO166/4099, war diary of 2nd Grenadier Guards and; WO 166/4091, war diary of 1st Battalion, Coldstream Guards, July - December 1940.

⁶²⁰ TNA, WO166/ 4606, war diary of 1st Battalion, Royal Ulster Rifles, July to October 1940.

for example, according to his (unpublished) *Notes on my Life*, (that formed the basis for Arthur Bryant's *Turn of the Tide* in 1956), he ran a three day 'Armoured Force Exercise' without troops at the Staff College in early January 1941 for his Regional Commander-in-Chiefs, four Corps Commanders and all the commanders of armoured divisions and armoured brigades. 'We even studied the organisation of German armoured divisions', Brooke noted.⁶²¹ Another example of Brooke's focus was a large XII Corps scheme entitled 'Exercise Murphy', in February 1941, the scenario for which involved German landings both north and south of the Thames, with enemy bridgeheads being established at Harwich, Lowestoft, Seaford, Newhaven and Peacehaven. Also, in April 1941 there was another XII Corps exercise, 'Exercise Divex', the scenario for which involved German landings with tanks at Hythe and the capture of both North Foreland and Ramsgate. Interestingly this involved 1 Armoured Division together with 1 Canadian Division driving down into the Weald of Kent to counterattack at Ham Street – something that had been planned (but never practiced for real) in the summer of 1940.⁶²²

Yet, even the two very large-scale anti-invasion exercises that took place in 1941 known as 'Exercise Bumper' and 'Exercise Bulldog', still revealed that many more such major, multi-corps, combined arms anti-invasion exercises would be needed before Britain's front-line army could consider itself competent in what had become the modern way of waging war.⁶²³ Sadly though, all this only underlines the limitations of many of the exercises that were undertaken (often in haste) during August and September 1940. It also points unmistakably to the conclusion that, sadly, the GHQ Reserve was insufficiently trained for the 'high-intensity' counter-attacking task that Brooke gave it from late July 1940 onwards.

Nor was the Royal Air Force competent at combined arms warfare in the summer of 1940. Indeed, the large-scale anti-invasion exercises in 1941 also showed that, even by then, the Royal Air Force had not yet overcome the considerable challenges it faced in the provision of accurate and timely tactical air support to the GHQ's mobile counter-attacking formations on the ground. Thus it was, that Brooke complained to the War Office in May 1941 that co-operation between the Royal Air Force and the Army remained 'altogether unsatisfactory and

⁶²¹ LHCMA, Alanbrooke: 5/2/16, 'Notes on my Life', Volume IV, Home Forces 1940 to 1941, dated 1954, p. 248 and p. 250.

⁶²² TNA WO 166/344, XII Corps, General Staff, XII Corps Exercise, 'Exercise Divex', 18 April 1941, briefing paper from Brigadier, General Staff, XII Corps.

⁶²³ For more information on Exercise Bulldog and Exercise Bumper in the spring and autumn of 1941, please see: TNA/WO 199/2457, Eastern Command, Exercise Bulldog, Instructions, 1941 and TNA/WO 199/2457, GHQ Home Forces, Exercise Bumper, 27 September to 3 October 1941.

inadequate'.⁶²⁴ One important factor behind this 'unsatisfactory' level of cooperation when it came to tactical support (in addition to the general shortage of suitable aircraft), was the fact that (in the view of this study) the Royal Air Force in the summer of 1940, lacked a 'philosophy' that was empathetic towards lending direct support to the Army on the battlefield. This was particularly true especially after its experiences in France, even though the Spanish Civil War had, according to Richard Overy, indicated to most military observers around the world that tactical air support had a huge role to play in a modern war.⁶²⁵ The Luftwaffe, as is well known, took a very different view, effectively using the Spanish Civil War to turn tactical air support and co-operation with the German Army into a core doctrine, which was further refined by a major investment in joint-training between the two services in the late 1930s.⁶²⁶

By contrast, having looked at what intelligence it could extract from the conflict by 1938, the Air Ministry concluded instead that strategic bombing was still highly valid as a concept and that tactical air support was what an air force risked getting sucked into if it did not make certain it was used in a strategic way.⁶²⁷ Supporting troops on the ground from low-level was thus potentially a costly misuse of such a powerful and scarce resource as air power – especially given its key priorities of air defence and strategic bombing. It would be wrong to argue that the Royal Air Force had no doctrine at all relating to tactical air support as the perceived threat of invasion grew - it had after all, amongst other things, produced a *Manual of Army Co-operation* which had reached its 3rd edition by 1940.⁶²⁸ But, as has been noted with the Army's Field Service Regulations at the time, the fact that a doctrine is laid out in theory does not necessarily mean it has been properly embedded or universally accepted. In fairness, the Luftwaffe's undoubted prowess at tactical air support during the Battle of France was often aided by a paucity of French or British fighters being on hand to oppose it. Furthermore, even then not everything went smoothly. It is interesting for example that, as the German Army Group B advanced into Belgium, its Sixth and Eighteenth Armies noted that Luftwaffe support was somewhat haphazard.⁶²⁹ It is also noteworthy that the British Army was not alone in

⁶²⁴ TNA, WO 193/678, Air Requirements of the Army, September 1939 to November 1945 (Historical Section), Memo from General Sir Alan Brooke to The Under Secretary of State at the War Office, dated 3 May 1941.

⁶²⁵ Comment by Richard Overy during debate organised in 2012 by, Intelligence Squared, entitled, *Was the Allied Bombing of German Cities Justifiable?*, www.youtube.com, [accessed 1 May 2020].

⁶²⁶ James Corum, 'The Luftwaffe's Army Support Doctrine, 1918-1941', *The Journal of Military History*, Vol. 59, No. 1 (January 1995), p. 76.

⁶²⁷ TNA, AIR 2/3261, report by Wing Commander R. V. Goddard, entitled; *Republican Spain: Visit of Air Staff Officers in February 1938*.

⁶²⁸ TNA, AIR 10/2293, *Royal Air Force Manual of Army Co-operation*, 3rd Edition, 1940.

⁶²⁹ Robert Kershaw, *Dünkirchen 1940: The German View of Dunkirk*, (London: Osprey Publishing, 2022), p. 54.

complaining vociferously about the lack of air support during the fighting around Dunkirk. Wehrmacht forces too sometimes felt aggrieved at the Luftwaffe for not preventing attacks on them by Royal Air Force aircraft - for instance on 23 May when the 1st Panzer Division attempted to break through the French defences at Gravelines on the western end of the Dunkirk.⁶³⁰

But such attacks were often costly from the Royal Air Force's point of view and the huge and well-documented losses suffered by the two principal light bomber types in France, Bristol Blenheim's and Fairy Battle's, mainly on 'tactical' missions such as attacks on the Meuse bridges during The Battle of France, were hard ignore.⁶³¹ They proved that unescorted light bombers operating at low-level with limited or no fighter escort were simply too vulnerable. Thus, it was understandable that Air Marshal Sir Charles Portal was thereafter reluctant to see Bomber Command's resources frittered away on further tactical support missions in France.⁶³² Furthermore, it was largely for this reason that he insisted upon the light bomber force continuing to sit under the Royal Air Force in the aftermath of Dunkirk, in the face of a sustained campaign by Brooke to have it formally placed under the Army's auspices – at least until the threat of invasion had rescinded and the more specialist aircraft designed for a ground support role (noted earlier) had begun to arrive from America. Thus, for a variety of reasons the light bomber force in the summer of 1940 was given scant opportunity by the Air Ministry to train in providing low-level close support to the GHQ Reserve – to Brooke's considerable frustration. This frustration can be glimpsed, for instance, in the minutes of a meeting of the War Office in early December 1940, when he complained that light bombers were, 'too preoccupied with other things'⁶³³ Interestingly, a debate ensued at the same meeting between the Vice Chief of the Air Staff and the Secretary of State for War, with the latter arguing for numerous light bomber squadrons to henceforward be allocated to the Army, with the Royal Air Force only withdrawing these aircraft for operational duties when absolutely necessary.⁶³⁴ This was declined and, in any event, by December 1940 (with hindsight) the actual threat of invasion had decreased considerably.

⁶³⁰ Ibid., p. 135.

⁶³¹ For more information on the losses of Royal Air Force light bombers at Sedan, please see; Greg Baughen, *The RAF in The Battle of France and The Battle of Britain*, (London: Fonthill, 2016), Chapter 7, Sedan: A lesson in Army Support.

⁶³² Denis Richards, *Portal of Hungerford*, p. 149.

⁶³³ TNA, WO 106/5162, Development of Close Support Action by Bombers: Report on Trials, Notes on air co-operation proposed, August 1940 – April 1941, minutes of meeting chaired by Sir Archibald Sinclair, Secretary of State for Air, at War Office on 10 December 1940.

⁶³⁴ Ibid.

Nor was Brooke alone in calling for air crews to be better trained in tactical air support in the summer of 1940. In August, Lieutenant-General Sir Claude Auchinleck at Southern Command added his voice by writing to the Air Force liaison officer within GHQ Home Forces demanding that ‘The Army begin training in the use of dive bombers in conjunction with troops actually operating on the ground.’⁶³⁵ The fact that little of this had taken place is surprising given that the Air Force’s own policy on dive-bombing, composed in August 1940, which underlined the need for regular training in such things as maintaining aircraft at high states of readiness, the rapid briefing of pilots (preferably at the dispersal huts), high standards of map-reading, the capability to approach low-level targets and then make an escape and the need for the Army to practice its understanding of what a ‘good target’ looked like.⁶³⁶ This is not to say that no joint-preparations and joint-training took place. For instance, in July 1940, there was a conference between the Royal Air Force and IV Corps (of the GHQ Reserve) specifically to discuss air-cooperation between the Air Force and 2 Armoured Division in the event of an invasion. Their war diary reveals that the Air Force subsequently participated in a one-day IV Corps exercise on 7 August 1940, during which it also gave a dive-bombing demonstration to give the men of 2 Armoured Division an idea of what the experience of being dive-bombed might be like.⁶³⁷ But, participating in the odd divisional exercise hardly amounted to a systematic attempt to train light bomber crews in the complex task of how to work with the mobile counter-attacking forces of the GHQ Reserve, despite clear instructions from the Air Ministry in August that Bomber Command would be responsible for attacking targets requested by the Home Forces once an invasion was underway.⁶³⁸ Sadly then, the minimal amount of training with Army formations that appears to have taken place in the summer of 1940 meant that the Air Force’s capability at ground support had arguably diminished from the time of the Battle of France - something that would (most likely) have been all too apparent had an invasion taken place.

⁶³⁵ TNA, WO 199/1764 Southern Command, Allocation of Army Cooperation Squadrons, June 1940 – Jan 1941, Letter from Lt.-General Auchinleck to Air Vice-Marshal Sutton at GHQ Home Forces, dated 15 August 1940).

⁶³⁶ TNA, AIR 14/181, Dive Bombing Policy, Notes on Exercise, dated 1 August 1940.

⁶³⁷ TNA, WO 166/814, war diary of 2 Armoured Division, General Staff, June 1940 – October 1940, Entries for 5 July and 7 August 1940.

⁶³⁸ TNA, AIR39/49, Air Staff Paper, *Royal Air Force Organisation for Air Action Against Invasion of Great Britain*, dated 18 August 1940, p. 6.

Larger-scale training in XII Corps

Although combined arms training at the divisional level and above was a huge need for the GHQ Reserve, it was also a priority at least at the divisional level, for the forces of XII Corps guarding the beaches of Kent and Sussex and their (modest) mobile formations – at least in Brooke’s eyes. Thus it is not surprising that the war diaries of the two divisions responsible for defending the two counties reveal that some larger-scale divisional exercises did indeed take place in the summer of 1940. For example, there were two such exercises within 1 (London) Division in Kent between July and September, (according to the war diary of the 1st Battalion, London Scottish Regiment) - on 19 August and 18 September. That said, these divisional ‘schemes’ both appear to have involved (essentially) getting onto transport, driving through darkness, taking up positions (typically on a river), engaging with an ‘enemy’ under the eyes of an umpire and then returning to camp.⁶³⁹ In neither of these exercises is mention made of the involvement of armoured vehicles (beyond their carriers) – although this is hardly surprising given both the paucity of ‘modern’ tanks at the time and the fact that XII Corps’ forces would have played a more defensive role at the ‘tactical’ level of warfare in the event of an invasion and were not equipped to undertake larger-scale combined mobile counter-attacks. However, it is hard from the material available in war diaries to assess the degree to which these exercises involved a genuine combined arms ‘dimension’.

Over the border in Sussex, the situation in 45 (West Country) Division appears to have been similar. The war diary of the 6th Battalion, Somerset Light Infantry (135 Brigade), reveals that there was just one divisional exercise that summer which took place in August - involving German ‘landings’ at Pevensey and New Haven and the use of 136 Brigade’s ‘mobile reserve’ to attack the enemy at Alfriston. But, the extent to which any of this involved a genuine combined arms component is hard to assess. In addition to this there were two brigade schemes in August and October – the latter based around the premise that 1 (London) Division had been overrun by a German armoured division that had landed at Folkestone.⁶⁴⁰ Whereas this scenario appears to have been highly relevant, little if any mention is made of these exercises in the war diaries of 45 Division HQ, 135 Brigade HQ or 136 Brigade HQ. And no ‘lessons learnt’ are on file either. Finally, XII Corps’ war diaries also reveal that numerous battalion-level training exercises (often involving the single company in each battalion that was supposed to be

⁶³⁹ TNA, WO166/4439, war diary of the 1st Battalion, London Scottish Regiment, July to September 1940.

⁶⁴⁰ TNA, WO166/4567, war diary of the 6th Battalion, Somerset Light Infantry, July to October 1940.

‘mobile’) were held. But the focus of these ‘schemes’ was frequently to practice the rounding-up groups of parachutists, rather than counter-attacking invading forces that had advanced inland. Doubtless XII Corps could have undertaken more of the type of larger-scale divisional exercises Brooke was advocating and with a reasonable combined arms ‘component’, but for the fact that every invasion alert that summer resulted in front-line troops on the coast ‘standing-to’ all night for days on end, thus making training impossible. This challenge is referred to in the extensive testimony provided by William Watson who, as noted earlier, was an officer with the 6th Battalion, Durham Light Infantry, guarding the Dorset coast in the summer of 1940. He was clear that there simply was no time for training during the periods when they had to ‘stand-to’ often twice per day - something his men found exhausting given the long summer days and short nights.⁶⁴¹ In summary then, it is not clear from available evidence that XII Corps’ real capability to execute a degree of combined arms warfare at the divisional level or to execute hard-hitting local counter-attacks at the brigade or battalion level against forces that had managed to penetrate inland from the beaches, had improved much by the time the invasion crisis peaked in late-September 1940.

The overall capability of territorial formations

When examining the training undertaken by XII Corps’ formations that summer it is worth pausing to consider just how challenging it had proved in France for even regular troops to counterattack the German Army effectively. One example of this was the (largely static) battle that took place along the river Scheldt on 21 May 1940, which saw the 3rd Battalion, Grenadier Guards (from within 1 Division), attempting to counter-attack German forces that had got across the river around Bailleul. In this instance the German regiments involved were only supported by a handful of light tanks and the account (as told by Hugh Sebag-Montifiore) makes no mention of the normal Luftwaffe intervention that so often occurred.⁶⁴² Despite this, the Grenadier Guard’s counterattack (through a cornfield towards a ridge of Poplar trees overlooking the Scheldt river), still resulted in some 188 Guardsmen being either killed or wounded over the course of a few hours. The intensity of the action can be illustrated by the report written shortly after the battle by a German officer, Hauptmann Ambrosius, of 11 Infantry Regiment, who stated that groups of Grenadier Guardsmen appeared to have ‘fought

⁶⁴¹ IWM, Sound Archive, No. 10420/11, William Watson, Officer, 6th Battalion, Durham Light Infantry, 151 Brigade.

⁶⁴² Hugh Sebag-Montefiori, *Dunkirk, Fight to the Last Man*, p. 162

to the last man' during the engagement.⁶⁴³ Doubtless the men of XII Corps would themselves have fought bravely to prevent an incursion inland from beaches such as Pevensey, Newhaven, Camber Sands and Dungeness (to name but four of the Wehrmacht's chosen sites for landings), but it is hard to imagine these under-trained (and unbloodied) territorial forces being able counter-attack with anything like the same skill and tenacity that the Grenadier Guards demonstrated on the Scheldt, (and on the Ypres-Commines Canal a few days later), no matter how much further training they had received that summer. Indeed, the paucity of that training is well demonstrated by the fact that as result of Brooke's training drive in 1941, even those troops guarding key stretches of coast found their training regime increased dramatically. Thus, 38 (Welsh) Division who found themselves relocated to the Sussex coast by the middle of 1941, were compelled to undertake both a monthly brigade exercise plus a monthly divisional exercise on the Downs –involving infantry tanks from 43 Royal Tank Regiment.⁶⁴⁴ By contrast, few of the troops guarding the UK's coastline in the summer of 1940 would have previously even seen an infantry or cruiser tank, let alone trained with one.

Furthermore, given the paucity of tactical air support that the GHQ Reserve would have received if it had been required to counter-attack German forces, it is no surprise that XII's forces would, most likely, have received little in the way of air support as they fought an invader advancing inland. Indeed, the most support they might have received would have been on the beaches themselves where disembarking troops would have made a relatively straightforward target for the Royal Air Force – with less danger of inadvertently bombing British troops. That said, an examination of records from six light bomber squadrons (No's. 12, 142 and 150 Squadrons of Fairey Battle's and No's. 82, 107 and 110 of Bristol Blenheim's), reveals that none of these squadrons practiced bombing key targets on or behind the most vulnerable south coast beaches in August and September 1940 - despite both the Deputy Chief of the Air Staff and the Deputy Chief of the Imperial General Staff (at a meeting of the Chiefs of Staff Committee at the end of June 1940), underlining the importance of attacking an invader on the beaches where it was easier for aircrews to differentiate friend from foe.⁶⁴⁵ Furthermore, Lieutenant-Colonel Carrington in his report entitled *Air Support for the Army* (written in 1945) specifically underlines that the task of identifying the grid references for the 109 'firm roads'

⁶⁴³ Ibid.

⁶⁴⁴ WO 166/482, 38 (Welsh) Division, General Staff, September 1939 to December 1941.

⁶⁴⁵ TNA, CAB 79/5/21, War Cabinet, Chief of Staff's Committee minutes, 26 June 1940.

that came to the foreshore opposite the most likely landing points along the south-east coastline, did not commence until October 1940.⁶⁴⁶ Arguably, bombing beaches or ‘firm roads’ leading to beaches would have been relatively straightforward in principle, especially in daylight, with or without a grid reference. However, it is nevertheless surprising that such missions appear not to have been at least rehearsed, given both the imperative of stopping an invader getting off the beaches and also the need to practice responding to signals from the ground giving new information as the actual location of Home Forces troops. Furthermore, each Fairey Battle or Bristol Blenheim attempting to attack German troops disembarking would, most likely, have been under intense Luftwaffe assault and would thus have needed bomb accurately at its first attempt. That said, the Royal Air Force at the time appears to have taken a different view of the value of such beach bombing rehearsals.

Finally, regardless of the level of combined arms training taking place in the summer of 1940, it is important to reiterate the fact that most of the formations within XII Corps and the GHQ Reserve were territorial rather than regular forces. This was a distinction that would rapidly disappear as the war went on as conscription gathered pace but it was still very real in 1940. How these territorial forces might have fared in the face of an enemy invasion, regardless of how much training in larger scale exercises they had or had not received, thus becomes an important issue to explore. Inevitably, an important source of insight into this question is to look further at how the first-line and second-line territorial divisions performed during the short campaign in France. The (already noted) dogged resistance at Cassel and Hazebrouk by formations of 48(South Midland) division and the resilience shown by another of its units, the 7th Battalion, Royal Warwickshire Regiment, during the Battle of the Ypres-Commines Canal are good examples of territorial army formations performing at their best in France.⁶⁴⁷ But, for many of the territorial formations on the continent, the shock of coming up against the modern German army was a real issue - as demonstrated by George Ledger, an NCO with the 8th Battalion, Durham Light Infantry, who recalls that during the Arras counter attack on 20 May 1940, he felt ‘the huge shock [of finding that] after so many years of training in the territorials, you’re going to actually do it...It just wasn’t reality’.⁶⁴⁸ Overall the fact remains that, as Alexander Jones in his thesis on the Territorial Army concludes, its performance during the

⁶⁴⁶ TNA, WO 233/60, Draft Report on Air Support for the Army, 1939-1945, by Lieutenant-Colonel. C. Carrington, dated 10 June 1945, Chapter III, The Defence of Britain.

⁶⁴⁷ More, *The Road to Dunkirk*, p. 190.

⁶⁴⁸ IWM, Sound Archive, No. 16722/10, George Ledger. NCO (and later Captain) 8th Durham Light Infantry, 50 (Northumberland) Division.

1940 campaign in France was thought of by many to have been ‘poor’ and that its officers were often, ‘inexperienced and under-trained’.⁶⁴⁹

This opinion of territorial forces at the time is borne out by the testimony of Phillip Pardoe, an officer with the (regular) King’s Rifle Corps, during the unsuccessful defence of Calais. He comments on the capability of the territorial troops from the 1st (Motorcycle) Battalion, Queen Victoria Rifles who had just been sent to fight alongside his men at Sangatte, despite lacking radios and (presumably because of a shipping mix-up) their motorcycles. As he puts it, ‘We tended to look on them slightly as amateurs. Although it was no fault of theirs that they had no vehicles or radios, it didn’t increase our opinion of the prospects of them putting up a very professional fight’.⁶⁵⁰ The same theme is also evident in the testimony of William Faure Walker, an officer in the Coldstream Guards in France – although he went much further and so is worth quoting in full:

On the whole, with some notable exceptions, the territorials that I came across [in France], and we came across quite a lot, were pretty useless. They had very mediocre officers. They were not...the best type of men and they had had no training and had no discipline. In fact, most of them were a liability. This was not their fault; there are no ‘bad’ men...in the British Army, it’s the officers and the NCO’s who can turn any reasonable ‘Britisher’ into a good soldier. And this is amply borne out by [the fact that] later in the war these same men who had been quite useless in 1940, turned into dam good soldiers... because they were properly led and had been properly trained. I’d had some pretty frightening experiences in training territorials before the war and my anticipation then was fully borne out by seeing their performance when the war came. The Scottish territorial regiments were absolutely first-class...and there were, of course, exceptions amongst the English regiments - we had some quite useful East Anglian territorials in our division. Of course, one was very unpopular if one said this when one got home. Nevertheless, it was the truth.⁶⁵¹

⁶⁴⁹ Alexander Jones, ‘Pinchbeck Regulars? The Role and Organisation of the Territorial Army, 1919-1940’, (unpublished doctoral thesis, Oxford University, 2016), p. 217.

⁶⁵⁰ IWM, Sound Archive, No. 6465/3, Philip Pardoe, Officer, 2nd Battalion, King’s Rifle Corps, 30th Infantry Brigade, 1st Armoured Division.

⁶⁵¹ IWM, Sound Archive, No. 6611/5, William Faure Walker, Captain, 1st Battalion, Coldstream Guards, 7th Guards Brigade, 3 Division.

Another issue was the sheer intensity of the fighting in France at time which, according to Peter Caddick-Adams, took its toll on many territorial units after a while, with the constant need to move locations (often daily) and dig in all over again, often under fire. In his view, it wore down their effectiveness.⁶⁵² Furthermore, their lack of equipment upon arrival in France was a huge challenge for most formations to overcome once the fighting started – especially given Alan Allport’s conclusion that, on average, territorial formations disembarking at French ports in the spring of 1940, had only around 25% of the equipment they should have had.⁶⁵³ Also, it needs underlining that impressions of the performance of territorial units in France were often informed by the fact that during the retreat to Dunkirk, some formations lost their ‘unit cohesion’ – something that regular formations were quick to notice and would have put down to a lack of training - amongst other things. That this was an issue is emphasised by K. Drewienkiewicz, in his study, which concludes that, ‘no ‘second-line’ territorial formation managed to maintain its cohesion after its first serious engagement in France, or impose any serious delay upon the German advance’.⁶⁵⁴ That said, maintaining unit cohesion when in retreat from a determined enemy after a bruising encounter, would not have been easy for any unit. After the action at Hazebrouck, the 1st (Buckinghamshire) Battalion (a first-line territorial formation), its ranks seriously depleted, also lost its cohesion as its remnants walked (for three nights) to Dunkirk. But this could hardly be classed as ‘ill-discipline’ under the circumstances and doubtless some second-line territorials had also been through similar ordeals before the order to head for Dunkirk was given.

The charge by some regulars that territorials were ill-disciplined during the retreat to the coast may also have been fueled by the behavior of the three third-line territorial divisions, the so-called ‘digging divisions’, which had been sent out for the sole task of constructing anti-tank ditches and other defences. As such, they were armed with little more than just rifles and were in no position to fight, despite some of them being called upon to do so as the situation deteriorated. Many such units sustained significant losses and would have doubtless lost cohesion during the trek to Dunkirk - or, in the case of some of them, Cherbourg. But, as Hew Strachan points out, given that Dunkirk was a clear defeat for the Army, many regulars were

⁶⁵² P. Caddick-Adams, ‘Phoney War and “Blitzkrieg”’: The Territorial Army, 1939-1940,’ *RUSI Journal*, Vol.143 No.2, (Apr.,1998), pp. 67-74.

⁶⁵³ Allport, *Browned Off and Bloody Minded*, p. 47.

⁶⁵⁴ K.J. Drewienkiewicz, ‘The build-up, early training and employment of the Territorial Army in the lead-up to, and the early days of, the Second World War,’ (unpublished dissertation, Royal College of Defence Studies, 1992), pp. 61-63.

keen to look around for scapegoats. One (in his view) was the Royal Air Force and the second became the territorial Army, in particular its second-line and third-line formations - an unfair criticism given the training and equipment they lacked.⁶⁵⁵ Indeed, in January 1940, Lieutenant-General Sir Ronald Adam, the Officer Commanding III Corps in France, made the point in a report that although the lack of training, equipment and high-calibre officers all contributed to what he described as a 'low level of efficiency amongst the territorial Divisions', this was hardly the fault of the troops themselves. Most of these he regarded as 'enthusiastic, intelligent and physically capable'⁶⁵⁶ But the question marks about the actual effectiveness of the territorial Army's formations persisted into the summer of 1940 – and at the highest level. It is noteworthy that Churchill himself later commented that, he had longed for more regular rather than territorial troops to defend the UK after Dunkirk and that, 'wars are not won by heroic militia's'.⁶⁵⁷

All this raises the question of just where on the 'capability spectrum' the four territorial divisions within XII Corps and the GHQ Reserve sat by September 1940, especially in relation to manpower, training and equipment. As ever, assessing this is not an exact science so long after the event, but we can at least start with how they were classified by the Army in September 1939 – when decisions were being taken about which divisions to send to France. Thus, within IV Corps, 43 (Wessex) Division was considered a 'first-line' territorial division and had at one point been ear-marked to be sent to France as part of the second British Expeditionary Force. It was also well-equipped in the summer of 1940, according to Churchill's (previously quoted) figures. However, IV Corps' other infantry formation, 42 (East Lancashire) Division, was only classified as a second-line formation back in September 1939 and by the summer of 1940, having seen a fair amount of action in France, had returned (as noted earlier) with little of its equipment. Indeed, it was only added to the GHQ Reserve in the late summer of 1940 and one cannot help wondering why this decision was taken, given the crucial importance of have only 'battle-ready' formations in the all-important mobile reserve. And as has been mentioned, this unit was also short of transport. Both divisions doubtless benefitted from the various larger-scale exercises they participated in during the summer of 1940, but whether these greatly increased their ability to conduct combined arms counter-attacks is hard to prove – especially

⁶⁵⁵ Strachan Hew, 'The Territorial Army and National Defence', in *The British Way in Warfare: Power and the International System, 1856-1956*, ed. by Keith Neilson and Greg Kennedy, (Farnham: Ashgate, 2010), p. 172.

⁶⁵⁶ TNA WO 163/49 OS.11 'Memorandum by the CIGS on the Training of III Corps: Appendix A – Report by G.O.C. 3 Corps,' 21 Jan 1940.

⁶⁵⁷ Churchill, *Their Finest Hour*, p. 145.

given that neither trained much with actual tanks (not least because 2 Armoured division had so few of them at the time). Overall, then, the capability of either of these divisions, fighting at the operational level, to drive back a significant enemy beachhead seems low.

Down in XII Corps, both 1 (London) Division and 45 (West Country) had been classified as 'second-line' territorial formations in late 1939. Whether they had improved enough by September 1940, to be classified as 'first line' units, is impossible to determine – but no re-classification exercise appears to have been undertaken by the War Office during 1940. As has been shown, both still had significant equipment shortages of key weapons such as anti-tank guns, artillery and light machine guns. Outside of their so-called 'mobile columns' (largely created to round up paratroopers), they had limited capability to move around as a formation and the analysis undertaken of their training in the summer of 1940 does not suggest that their ability to launch a 'high-tempo' local counter counterattack against a determined enemy (provisioned with high-effective tactical air support), had increased significantly. In summary then, these four territorial divisions, upon which so much rested in September 1940, were probably less capable in terms of equipment and training than the best of the first-line territorial Divisions in France, such as 48 (South Midland) Division. Given what Brooke was expecting them to achieve, this is concerning to say the least.

In summary then then, looking across the elements of the whole of the Physical component of 'fighting power', in relation to XII Corps and the GHQ Reserve in September 1940, the situation can only be described as 'very worrying.' This chapter's analysis of Manpower, Equipment and Training in relation to these formations has identified several significant deficiencies that would cumulatively have diminished overall fighting capability in the event of these Army formations, together with the Royal Air Force, being called upon to repel an actual invasion. Indeed, it would be fair to conclude that the equipment situation was worse than has come to light so far in the historiography and it is also apparent that both the amount and the quality of training fell well short of what was required to make up for these gaps, as the perceived threat of invasion loomed ever larger.

Chapter Three

The Conceptual Component of ‘Fighting Power’

Chapter Three addresses the third of the secondary research questions, i.e., in relation to the Conceptual Component of the Model of Fighting Power, what was the capability of the British Army to repel a German invasion in September 1940? As noted in the Introduction, the Conceptual Component guides both the Moral and Physical Components and is concerned both with the development of a fighting doctrine that is properly understood and with the ability to apply that doctrine flexibly and pragmatically – something which requires a capability to learn and adapt. The Conceptual Component is, by definition, more nebulous than either of the first two components that have been investigated in this study, but was a crucial aspect of the Army’s ‘fighting power’ in 1940. This chapter thus examines the development of the Army’s fighting doctrine and within that especially its armoured doctrine, up to peak of the perceived invasion threat in the late summer of 1940. It also explores the impact of broader military and strategic constraints that (in the view of this study) would have impeded the execution of this doctrine in the event of an invasion. Finally, having established what the fighting doctrine should have been at both operational level of warfare (the GHQ Reserve) and at the more tactical level of warfare (the local formations with 12 Corps in Kent and Sussex), this chapter will then assess the degree to which that doctrine was being adhered to and how that impacted ‘fighting power’.

The general development of British Army doctrine by 1940

The evolution of a combined arms fighting doctrine

The consensus within the historiography is that the fighting doctrine of the British Army in the late summer of 1940 was problematic. At the very least it was in a state of flux, not helped by the experiences of the British Expeditionary Force in France coupled with the sense of national emergency caused by the perceived threat of invasion. However, as David French (probably the leading historian on the British Army in 1940) states, a new combined arms fighting doctrine had been developed by the mid-1930s, one that built upon the reality that, even as early as the more fluid campaigns of 1918, the British Army was effectively fighting with

troops, artillery, tanks and aircraft working together.⁶⁵⁸ That said, this view is not universally accepted. Jonathan Boff, for instance, in his article on combined arms tactics in the last three months of 1918 makes the point that whilst some British formations were capable of an extremely sophisticated approach, ‘fully combining both integral and attached assets, calibrating their use to a tactical situation and flexibly altering their methods as required’, others had continual problems integrating other arms (especially tanks) and thus tended to fall back to ‘relying on the barrage’.⁶⁵⁹ Crucially though, the challenges of executing combined arms warfare in 1918 were already very considerable, never mind the additional complexity of doing so as a degree of movement returned to the battlefield in the last months of the conflict.

This doubtless goes some way to explaining why this ‘new’ way of waging war was still seen as novel within the British Army at the start of the Second World War. For despite it being laid out in theory in a series of Field Service Regulations (culminating in those dated 1935), this new fighting doctrine remained insufficiently understood, agreed upon or practiced across the British Army 1939 as the British Expeditionary Force departed for France.⁶⁶⁰ In fairness this situation was not helped by the limited opportunities that the Army had had to practice mechanised and mobile warfare before coming up against the Wehrmacht in 1940 in both France and Norway.⁶⁶¹ An examination of the actual Field Service Regulations produced at the end of 1935, supports French’s conclusion. They contain the principles for conducting both offensive and defensive engagements, along with counter-attacks by a ‘general reserve’. In each case the need for co-operation and planning between infantry, artillery, anti-tank guns, armoured forces and aircraft is emphasised, as is the need for mobility and the importance of conducting operations that an enemy least expects. Thus, the Field Service Regulations lay out principles rather than detailed practical instructions, but it is nevertheless hard to conclude that, by 1940, the British Army lacked a relatively modern, combined arms doctrine – at least in theory. However, in addition to a lack of deep commitment to combined arms warfare across the Army, the critical role that such an approach to warfare required aircraft to play on the battlefield had yet to be fully acknowledged by the Royal Air Force – as will be explored later.

⁶⁵⁸ David French, *Doctrine and Organisation in the British Army, 1919 – 1932*, *The Historical Journal*, Vol. 44, No. 2 (June 2001), 497-515, (p. 498).

⁶⁵⁹ Jonathan Boff, ‘Combined Arms during the Hundred Days Campaign, August-November 1918’, *War in History*, Vol.17, No. 4 (November 2010), 459-478, (p.470).

⁶⁶⁰ War Office, *Field Service Regulations, Volume III (Operations Higher Formations)*, dated 31 December 1935.

⁶⁶¹ *Ibid.*, p. 513.

Another issue, the root-cause of which may have lain in the British Army's regimental system, was the tendency for different formations and commanders to interpret doctrine in slightly different ways. David French thus concludes that the pre-war Army possessed what he termed a 'paper doctrine' for mechanised combined arms co-operation but that, 'it lacked a common interpretation of that doctrine.'⁶⁶² Nor is there evidence that what French describes as the pre-war tendency 'for senior officers to interpret doctrine as they saw fit,' had been addressed to any significant extent by the peak of the invasion crisis in September 1940.⁶⁶³ That this was an ongoing issue can be demonstrated by the fact that Brooke, after more than a year commanding the Home Forces and having just witnessed the large-scale anti-invasion exercise, 'Exercise Bumper', in September 1941, was disappointed that too many commanders, especially of armoured forces, still did not appear to understand the need for tanks to operate in close cooperation with other arms.⁶⁶⁴

The development of military fighting doctrine and particularly armoured doctrine in Britain during the interwar years is a complex subject and one that needs to be explored here in some detail given the crucial role that Britain's armoured formations would have played in counter-attacking an invading force in 1940. Not surprisingly then, the development of British armoured doctrine has been well investigated in the historiography, perhaps most comprehensively by Brian Bond in 1980 and then by J.P. Harris in 1995.⁶⁶⁵ These detailed studies both reveal just how tortuous the development of military and especially armoured doctrine was, in the face of a variety of constraints. These included competing strategic priorities overseas, the debate about the Army's role in general given the development of new weaponry (particularly aircraft), the need to motorise and in some areas mechanise the Army, the urgent need for military spending cuts following the Great Depression and the further spending constraints (between 1937 and 1939) that resulted from Neville Chamberlain's government briefly veering away from the need for Field Force that could fight a continental war. It is thus hardly surprising that, against this background, debates about the implementation of armoured doctrine and how it should fit within a combined arms doctrine at the practical

⁶⁶² French, *Raising Churchill's Army*, p. 173.

⁶⁶³ *Ibid.*, p. 184.

⁶⁶⁴ TNA, WO 199/2469, GHQ Exercise Bumper, 27 September to 3 October 1941, *Comments by the Commander in Chief, Home Forces*.

⁶⁶⁵ Brian Bond, *British Military Policy Between the Two World Wars*, (Oxford: Clarendon Press, 1980) and J.P. Harris, *Men, ideas and tanks: British Military Thought and Armed Forces, 1903-1939*, (Manchester: Manchester University Press, 1995).

level became complex and ‘muddled’, even though, as noted earlier, such doctrines were laid out at a high level in the Field Service Regulations from 1935 onwards.

Given that this study is examining all components of the Model of Fighting Power and that armoured doctrine is only one aspect of the Conceptual Component, it is important to summarise the kernel of the argument over armoured doctrine in Britain during the 1930s, rather than explore the subject in consummate detail. In essence then, the debate centred around what massed modern tanks with a high degree of independence might achieve on a future battlefield if unshackled from the task of attacking enemy strongholds in support of an infantry advance. There were two key proponents of the ‘massed tanks’ concept that emerged at end of World War One. One, J.C. Fuller, was both a major-general and a prolific writer on military thought. The other, Basil Liddell Hart, was also influential military thinker but in addition was both a defence correspondent, an author and (briefly) a military adviser to the Secretary of State for War, Leslie Hore-Belisha.

In summary, Fuller, writing at the end of the First World War, outlined in a treatise called ‘Plan 1919’ an approach whereby large tank formations could, in future, be used to win major battles on the basis that waves of different types of tanks could be used for different tasks. These could include, assaulting an enemy redoubt head on with heavy tanks, breaking through and harassing a retreating enemy with light ‘cavalry’ tanks, or using fast medium tanks to break away across country to encircle an enemy headquarters – supported by echelons of mechanised troops in armoured vehicles and with aircraft being used to provide vital reconnaissance.⁶⁶⁶ Aspects of what Fuller was advocating were proved valid during the later battles of 1918, according to Field Marshal Lord Richard Carver, given that the Army’s new medium tanks proved that, ‘they could be employed as mechanised cavalry and not just siege engines.’⁶⁶⁷ It is noteworthy that, by 1935, British armoured doctrine clearly incorporated aspects of Fuller’s thinking. Thus, the Field Service Regulations published that year cover the specific use of tanks in the attack and the counter-attack (in Section 21 of Volume III). Two alternative approaches are laid out, the first involving tanks and infantry working closely together and the second

⁶⁶⁶ For a full description of J.C. Fuller’s ideas on tank warfare, as laid out in ‘Plan 1919’ and various books, see: B.H. Reid, *J.F.C. Fuller: Military Thinker*, (Basingstoke: Macmillan, 1987).

⁶⁶⁷ Field Marshal Lord Richard Carver, *Apostles of Mobility: the Theory and Practice of Armoured Warfare*, (London: Weidenfeld and Nicolson, 1979), pp. 32-33.

focused upon tanks moving more independently and at pace to attack an enemy's flanks.⁶⁶⁸ Interestingly, this doctrine was in place despite Field Marshal Lord Richard Carver stating in his testimony to the Imperial War Museum that, back in 1935 when he attended Sandhurst, 'Little attention was paid to tanks.'⁶⁶⁹ Despite this, it is noteworthy that Fuller's ideas had a considerable impact given that, by the summer of 1940, the Army had three different types of tanks, on almost precisely the lines he had suggested. That said, too many of these were Vickers Mk VI light tanks which, according to Carver, were 'almost useless on the battlefield' and too few were modern well-armoured medium tanks.⁶⁷⁰

Liddell Hart built on much of Fuller's thinking albeit that he was primarily what Field Marshal Lord Carver describes as 'an all-arms man.'⁶⁷¹ Thus, although Liddell Hart also believed in what came to be called the 'mass tank approach', he did so with subtle differences such as putting greater emphasis upon motorised infantry fighting alongside tanks and with more of a tactical support role for aircraft in support of armoured formations.⁶⁷² Also, Liddell Hart advocated that massed armour should be predominantly used against an enemy's weaker flanks and rear, rather than attacking fortified strong-holds - as had so frequently happened during World War One with indifferent results and huge casualties.⁶⁷³ But the key point here is that, during the inter-war period much thought was given as to how to translate both Fuller's and Liddell Hart's notion of 'massed tanks' into a modern doctrine for British armoured warfare. And a key figure in this process was (the then) Brigadier Hobart, who commanded the 1st Tank Brigade between 1933 and 1937, within the (increasingly influential) Royal Tank Corps. Indeed, it could be argued that in some respects Hobart had surpassed Fuller and Liddell Hart as the Army's leading thinker on armoured warfare by the mid-nineteen thirties. According to Nigel Duncan, a participant at Staff College in 1935 and 1936 (who went on to be a Staff Officer with 1 Armoured Brigade), neither Fuller nor Liddell Hart were by then seen as the leading sources of insight as to how tanks should be used in modern warfare.⁶⁷⁴

⁶⁶⁸ War Office, Field Service Regulations, Volume III (Operations Higher Formations), Section 21, dated 31 December 1935.

⁶⁶⁹ IWM, Sound Archive, No. 877/1, Field Marshal Lord Carver, Royal Tank Corps.

⁶⁷⁰ Carver, *Apostles of Mobility*, p. 53.

⁶⁷¹ IWM, Sound Archive, No. 877/3, Field Marshal Lord Carver, Royal Tank Corps,

⁶⁷² Bond, *Men, ideas and tanks*, p. 127.

⁶⁷³ For an in-depth articulation of Basil Liddell Hart's views on armoured warfare and the use of a combined arms approach to waging war see; *The Strategy of Indirect Approach*, (London: Faber and Faber, 1941).

⁶⁷⁴ IWM, Sound Archive, No. 829/9, Nigel Duncan, (Staff Officer with 1st Armoured Brigade 1938-40).

Under Hobart, the Tank Brigade's annual exercises on Salisbury Plain over the next few years led to him concluding that tanks could achieve more as an independent mobile massed force, attacking an enemy's weakest point and backed up with air support. However, Hobart also concluded that his formations were markedly less effective when trying to operate as a combined arms force, simply because it proved so challenging during exercises in the mid-1930s for (only partly-mechanised) infantry and artillery to keep up with his tanks. He thus increasingly pushed for a 'pure tank' approach to armoured warfare because this approach worked - not because he could not see the potential benefits of combined arms co-operation.⁶⁷⁵ But, it was Hobart's uncompromising approach to the ideas of others, both at the War Office and then as a major-general commanding the newly formed 'Mobile Division' (Egypt) in the Middle East, that caused a friction that proved detrimental to the development of one agreed armoured doctrine. In the words (once again) of Field Marshall Lord Richard Carver 'He [Hobart] disliked the establishment and they disliked him.' Also, in Carver's words, Hobart's philosophy of tank warfare was that 'tanks could do everything' and his training regime in the desert appeared to involve 'constant movement and driving around an enemy at high speed, but at the expense of personal security.'⁶⁷⁶

It is also important to underline that the tension between Hobart and the War Office was not simply over how to use tanks on the battlefield. There was, it appears, a widespread fear among some higher echelons that The Royal Tank Corps was attempting to expand its influence too far – at the expense of the Army's dozen or so cavalry regiments that were by then in the process of slowly being mechanised with light tanks and armoured cars. This tension was not helped by the relative social gap between the cavalry and tanks corps at the time and the considerable political influence enjoyed by the former because of this.⁶⁷⁷ Indeed, with hindsight, the decision taken in the later 1930s to accelerate the mechanisation of cavalry formations, predominantly with light tanks and armoured cars, rather than to expand the Royal Tank Corps, had a direct influence upon the numbers of 'modern' tanks in existence in southern England in September 1940. It also delayed the arrival of one accepted armoured doctrine throughout the Army. Also, as Robert Lawson concludes in his study, this meant that the relatively few senior officers within the newly-established Royal Tank Corps were still having

⁶⁷⁵ Kenneth Macksey, *Armoured Crusader: The Biography of Major-General Percy 'Hobo' Hobart*, (London: Grub Street, 1967), p. 126.

⁶⁷⁶ IWM, Sound Archive, No. 877/3, Field Marshal Lord Carver, Royal Tank Corps.

⁶⁷⁷ David French, *The Mechanization of the British Cavalry between the World Wars*, *War in History*, Vol. 10, No. 3 (July 2003), pp. 296-32.

to compete with the more numerous ranks of senior cavalry officers for very senior roles in the Army – something which delayed their ability to influence Army policy even by the late 1930s.⁶⁷⁸

The lack of expansion of the Royal Tank Corps in the second half of the 1930s, something that caused Hobart great frustration, also contributed to the fact that when the Army's first armoured division (the so-called 'Mobile Division') was created in the UK in 1937, the Army lacked a clear conception of its role. Hobart was pointedly not given command of this division, with the role instead going to Brooke (at Gort's request as the then Chief of the Imperial Defence Staff) - largely because Brooke did not share Hobart's boundless enthusiasm for what massed tanks could achieve. Thus, while Hobart departed to Egypt to continue the development of his ideas, Brooke called for the development of a new armoured doctrine for the Mobile Division in the UK but, according to Harris, had not delivered this by the time he was promoted into a different role just one year later.⁶⁷⁹ Agreeing how the new 'Mobile Division' would wage armoured warfare was further complicated, according to Bond, by the fact that two thirds of it was populated by light tanks manned by ex-cavalrymen. Furthermore, the relationship between the cavalry and tank components remained uneasy despite the creation of the umbrella of the Royal Armoured Corps in 1939, a move designed to bring them both together.⁶⁸⁰

Thus, when the Mobile Division was renamed 1 Armoured Division only a short while later, the cultural divide between tanks and cavalry persisted within it. This is well demonstrated by the fact that when Enoch Powell was posted to 1 Armoured Division (in Dorking) in August 1940 as an intelligence officer, he noticed the marked contrast between the quality of officers from the (now re-named) Royal Tank Regiment and their (in his view) much more impressive counterparts from the various cavalry regiments with their light tanks and armoured cars that populated two of the Division's three brigades.⁶⁸¹ But, even more importantly, 1 Armoured Division in 1940, both in France in June and then in southern England in September, was hardly the independent, tank-focused striking force that Hobart had envisaged. Nor did it yet have the

⁶⁷⁸ R.H. Larson, *The British Army and the Theory of Armoured Warfare, 1918 – 1980*, (University of Delaware, Newark, 1984), p.176.

⁶⁷⁹ J.P. Harris, *Men, Ideas and Tanks: British Military Thought and Armoured Forces, 1903 – 1939*, (Manchester: Manchester University Press, 1995), p. 288.

⁶⁸⁰ Brian Bond, *British Military Policy Between the Two Wars*, (Oxford: Clarendon Press, 1980), p. 187.

⁶⁸¹ IWM, Sound Archive, No. 10044/3, Enoch Powell, (Intelligence Officer, 1 Armoured Division, 1940).

capability to wage combined arms warfare against a sophisticated enemy.⁶⁸² Furthermore, the question of how best to use the limited armoured formations in the GHQ Reserve in September 1940 in the event of an invasion, was not helped by the fact that both 1 Armoured Division and the (partially-equipped) 2 Armoured Division, with their cruiser tanks and light tanks, remained separate from the two army tank brigades with their heavier infantry tanks. This structure, according to Bond, had much to do with the War Office's fear, in 1937, that Hobart would end up in charge of the new Mobile Division and that the army tank brigades would then simply be absorbed under his command and thus locked into his 'massed tank' focus. Indeed, the antipathy of many in the War Office to Hobart and his ideas is well demonstrated by the testimony of Major-General Frederick Gordon-Hall, a staff officer at the War Office between 1936 and 1938, working under Major-General Martel - who, according to Gordon-Hall, 'didn't get on with Hobart'. In Gordon-Hall's words, Hobart took the view that 'everything that everyone else was doing was a lot of damn nonsense' and that all Hobart really wanted was, 'an enormous tank, weighing perhaps twenty or thirty tons, which was self-supporting and which could range all over the rear areas of the battlefield carrying its own food with it.'⁶⁸³ It is interesting that Hobart did indeed persuade the War Office to issue a specification for just such a vehicle which was in development for a while as the 'A15', in parallel with the A13 cruiser and Mk II (Matilda) infantry tank, before being abandoned!⁶⁸⁴

All this further underlines an overall confusion in the late 1930s over tank designs and roles which hardly helped clarify the doctrinal debates about armoured warfare – especially given that, by September 1940, 'modern' tanks of any design were (as shown in Chapter Two) in short supply and many of their crews were relatively inexperienced following the losses in France.⁶⁸⁵ This is doubly noteworthy given that the concept of the cruiser tank (first introduced in late 1937) was not a response by the Royal Tank Corps for a tank to underpin Hobart's 'massed tank' philosophy at all. Instead it came about by chance, following the visit that Major-General Martel made to Russia in 1936, as Assistant Director of Mechanisation. There he had been impressed by the ability of Russian tanks to move at pace across country.⁶⁸⁶ As a result

⁶⁸² Captain Jonathan House, *Towards Combined Arms Warfare: A Survey of 20th Century Tactics, Doctrine and Organization*, (unpublished research survey, Combat Studies Institute, U.S. Army Command and General Staff College, August 1984), p. 10.

⁶⁸³ IWM, Sound Archive, No. 858/4, Major-General Frederick Gordon-Hall, Staff Officer.

⁶⁸⁴ *Ibid.*

⁶⁸⁵ IWM Online Collection, Paper entitled, '*Britain's Struggle to Build Effective Tanks During the Second World War*', [accessed 20 October 2020].

⁶⁸⁶ J.P. Harris, *Men, Ideas and Tanks*, p. 277.

the cruiser tank was born using an American Christie chassis to allow rapid movement over rough ground. That said, the speeds achieved in early trials had been curtailed somewhat by the time the Mk II A13 cruiser tank arrived in 1940 with its 30mm of heavy armour – a level of protection that still proved insufficient in France. But the key point here is that having different medium tanks performing different roles was ultimately unhelpful as the threat of invasion grew in the summer of 1940. As Harris notes, what the Army needed in September 1940 was a substantial quantity of one, effective, medium tank that could perform all roles asked of it whatever armoured doctrine was being employed.⁶⁸⁷

Why this situation occurred and indeed why equipment generally across the Army was both in limited supply and of ‘mixed’ quality (as explored in Chapter Two), has much to do with successive procurement cuts throughout the 1930s. These were primarily driven by the need to cut costs following the Great Depression but were accompanied (as noted earlier) by changes in military spending priorities triggered by the growing importance of air power and the urgent need for robust air defences as the Second World War approached. Sadly, it was the Army that suffered most, as budgets for new equipment were pared back and tank development subsequently suffered. Indeed it is worth noting that, as early as July 1934, when Neville Chamberlain was Chancellor of the Exchequer the Cabinet approved a report from the Defence Requirements Committee that led amongst other things to an expansion of the Royal Air force to 52 Squadrons because of German rearmament and the fact that, ‘people wanted air defence’.⁶⁸⁸ This was only made more pronounced by the decision taken by the Cabinet in February 1936 to expand the Navy and to re-equip but not to expand the Army. This in turn was followed in 1937 by Chamberlain’s government reducing Army funding further (in favour of a greater air deterrent) on the basis that its policy of pursuing peace meant that a modern Field Force would not be needed to fight on the continent.⁶⁸⁹ The extent of these particular spending constraints became evident when, in July 1937, the new Chancellor of the Exchequer, Sir John Simon announced that the £1.5m mentioned in the February 1937 White Paper as the minimum available for re-armament between 1937 to 1942, was now to seen as the maximum number - something which then led to major budget cuts for The Royal Tank Corps.⁶⁹⁰

⁶⁸⁷ Ibid., p. 305.

⁶⁸⁸ Gaines Post, ‘Mad Dogs and Englishman: British Rearmament, Deterrence and Appeasement, 1934-1935’, *Armed Forces & Society*, Vol. 14, No. 3 (Spring 1988), 329-357, (pp. 334-335).

⁶⁸⁹ Brian Bond, ‘Leslie Hore-Belisha at the War Office’, in *Politicians and Defence: Studies in the Formulation of British Defence Policy 1845 – 1940*, ed. by Ian Beckett and John Gooch (Manchester: Manchester University Press, 1981), pp. 110 – 130, (p. 121).

⁶⁹⁰ Brian Bond, *British Military Policy Between the Two Wars*, (Oxford: Clarendon Press, 1980), p. 247.

In summary then, given a combination of spending constraints, acrimonious debates over armoured doctrine, the development of too many types of tanks, the perceived need to mechanise the Army as a whole, the rivalry between the Royal Tank Corps and the increasingly-mechanised Cavalry, the need for air defences and the question as to whether a continental field army was going to be needed at all, it is hardly surprising that Britain's capability at armoured warfare was under-developed as the Second World War approached. Indeed, as Robert Larson concludes in his penetrating study, the Army arrived at the beginning of the Second World War with the collective view that its armoured formations, when not attacking positions head on with infantry support, would essentially be used in the same way that light and heavy cavalry had previously been employed – i.e., in reconnaissance, raids and flank attacks.⁶⁹¹ As Larson puts it, this stemmed from the Army's tendency to fit its tanks into its existing fighting doctrine, rather than see them as an opportunity to develop a completely new way of fighting modern wars.⁶⁹² As noted in Chapter Two, none of the tanks Britain had in 1940 combined real mobility with both firepower and armour. Even if these had existed, no agreed armoured doctrine had been formulated and embedded that would have enabled such tanks to be used in conjunction with other arms to launch deep thrusts into an enemy's rear positions, lines of communication and command centres, as the Wehrmacht had done in France. As ever, some of this existed in the theory laid out in the 1935 Field Service Regulations. Thus, these contained the statement that, 'the mobility of tank brigades...gives them frequent opportunities for surprise and enables them to strike a blow not only at the flanks of an enemy but also at his headquarters and rear services'.⁶⁹³ But, as with the other aspects of armoured doctrine already noted, such a use of tanks existed much more on paper than it did in practice.

Thus, different aspects of the thinking of Fuller, Liddell Hart and Hobart all ended up forming part of the armoured doctrine that existed by 1940. But, the crucial debate as to how best to fight a mobile war with tanks, artillery, infantry and aircraft all working together, was far from resolved by the time the British Expeditionary Force returned from Dunkirk. Also, by then, the importance of infantry working with tanks (as they had tried unsuccessfully to do during the Arras counter-attack on 20 May) seems to have gained the upper hand over the notion of using independent 'massed tanks'. Major Henry Liardet who, in 1940, became the Secretary of the Tank Users Committee (that liaised with the manufactures of armoured

⁶⁹¹ Larson, *The British Army and the Theory of Armoured Warfare, 1918-1980*, p. 149.

⁶⁹² *Ibid.*, p. 191.

⁶⁹³ War Office, *Field Service Regulations, Volume II (Operations General)*, (London: HMSO, 1935), p. 4.

vehicles) and who went on to be a Major-General, recalls that at Staff College in 1939 the tactical exercises they undertook with tanks, were mainly focused upon infantry co-operation.⁶⁹⁴ Also, Major Arthur Flint of 42 Royal Tank Regiment, recalls that working with infantry and having a more combined arms mindset, began in earnest with the formation of the Royal Armoured Corps in 1939. Thereafter it became more common, as he puts it for, ‘a section of three to four tanks, to work with an infantry platoon or company, supported by artillery and so on’.⁶⁹⁵

Furthermore, as war beckoned some were increasingly questioning whether it was sensible to use tanks as an independent force at all. Nigel Duncan, for instance, who (as already noted) was a Staff Officer with 1 Armoured Division, recalls that his personal view was that to send a mass of his brigade’s A13 cruiser tanks around an enemy’s flank to attack its rear, would have been ‘both dangerous and profligate.’⁶⁹⁶ Furthermore, when Hobart’s ideas were given full-rein in the north African desert, using massed tanks on their own proved problematic. Major-General George Richards, for instance, who commanded 4 Armoured Brigade in the Western Desert in 1940 and 1941 (before becoming a tank advisor to General Wavell), concludes that his unit should have fought more closely with infantry, artillery and anti-tank guns, rather than incur the losses they did operating alone.⁶⁹⁷ However, his testimony also reveals that one of the reasons they fought independently was that there were hardly any anti-tank guns available for them to co-ordinate with. In summary then, by the outbreak of war much remained to be done in terms of building consensus around one overall combined arms fighting doctrine and within it an armoured doctrine, that enabled the British Army to maximise the potential of armoured fighting vehicles on the modern battlefield.

Sadly, the need for a more fundamental re-think of military doctrine was not a key conclusion of the Bartholomew Report in June 1940 into the lessons to be learnt from the Battle of France. This was doubtless partly due to the perceived imminence of invasion which, in David French’s words, made major changes to how the Army should fight somewhat ‘impractical’.⁶⁹⁸ Hew Strachan also supports this view, emphasising that re-thinking the British

⁶⁹⁴ IWM, Sound Archive, No. 862/5, Henry Liardet, Secretary, Tank Users Committee.

⁶⁹⁵ IWM Sound Archive, No. 899/5, Arthur Flint, Major, 42 Royal Tank Regiment.

⁶⁹⁶ IWM, Sound Archive, No.829/9, Nigel Duncan, Staff Officer, 1 Armoured Division.

⁶⁹⁷ IWM, Sound Archive, No. 866/7, Major-General George Richards, (G.O.C. 4 Armoured Brigade, 7 Armoured Division 1940/41).

⁶⁹⁸ French, *Raising Churchill’s Army*, p. 94.

Army's doctrine in the immediate aftermath of Dunkirk was challenging given the immediate priority of national survival – despite the fact that (according to him) a mis-match had emerged in France between the Army's doctrine and its equipment, particularly relating to the fact that despite its considerable mobility it nevertheless lacked sufficient firepower.⁶⁹⁹ This point was picked up in the Bartholomew Report's numerous tactical recommendations, in that it called for heavier fire support - along with a signals capability more suited to mobile operations and better Army-Royal Air Force co-operation. Also, whereas the report conceded that offensive spirit had sometimes been lacking, it concluded that the military campaign in France had been 'unique' and thus unlikely to be replicated. In particular, it took the view that the fighting had been essentially a series of withdrawals and that, 'In no case were we forced to relinquish the main position by a frontal assault on the British Expeditionary Force.'⁷⁰⁰ This latter point is also underlined by the narrative expressed in the war diaries of many units. These often relate how a formation advanced deep into Belgium on 10 May, only to end up almost where they had begun two weeks later - at which point the campaign became a fluid fighting withdrawal to the coast. Thus, Brooke noted in his diary on 19 May that 'II Corps has driven 150 miles in 9 days and occupied four successive defensive positions.'⁷⁰¹

This is not to say that a variety of tactical lessons from the British Expeditionary Force's experience in France (and to a lesser extent Norway) were not shared across the Army. For example, the war diary of the 1st London Scottish Regiment (part of 2 London Brigade), based in north Kent in July 1940, reveals that a Major Nicholson of the Royal Warwickshire Regiment gave a lecture to the battalion on lessons learnt by the Army in France.⁷⁰² Sadly, no record of the talk's content is on file, but it would be safe to assume that similar lectures were given to many other Army units and formations which had not fought in France (a number of which now sat in XII Corps or the GHQ Reserve). Also, doubtless most of their officers were only too hungry to understand as much as possible about how to combat the modern Wehrmacht. Also, it worth noting, as Lofting points in out, that not everything went wrong in France. In his view, the British Army proved itself to be steadfast in defence, with an efficient movement control system - as illustrated by the fast redeployment of Brooke's II Corps from

⁶⁹⁹ Review by Hew Strachan of *Raising Churchill's Army*, by David French, in the *Journal of the Society for Army Historical Research*, 2001.

⁷⁰⁰ TNA, CAB/106, *Final Report of the Bartholomew Committee on Lessons to be Learnt from the Operations in Flanders*, June 1940-October 1940.

⁷⁰¹ *War Diaries*, Alanbrooke, entry for 19 May 1940.

⁷⁰² TNA, WO166/4439, war diary of the 1st Battalion, London Scottish Regiment, 2 London Brigade, 1 (London) Division, July 1940.

south of Dunkirk on 26 May.⁷⁰³ But, the key point is that little changed from a doctrinal perspective. Indeed, not only did the Bartholomew Committee's Report did not lead to any change in fighting doctrine, infantry fighting tactics also went unchanged given the crushing priority of preparing for an invasion. In short, this study has uncovered no evidence that the Army's approach to battlefield tactics and fieldcraft changed significantly between Dunkirk and the peak of the invasion crisis some four months later. This is also demonstrated by the lack of new thinking on how to fight in Army Training Memorandum (No.36) published in September 1940 - when compared to Army Training Memorandum (No. 31) published in April 1940.⁷⁰⁴ These documents are tactical training literature rather than statements of doctrine but, taken as a whole, they do not advocate much in the way of combined arms warfare even at the more tactical level. Interestingly, the same publication for July 1940, does include eight points relating to 'Experiences in France'. One is entitled, 'Importance of Liaison with Other Arms' and involves a short case study describing how an infantry unit had withdrawn from the Dyle Line at night without bothering to tell the officer commanding its troop of anti-tank guns what it was doing - thus endangering these weapons.⁷⁰⁵ This was doubtless an important lesson to absorb but it has little to do with genuine combined arms warfare. Furthermore, the post-Dunkirk initiative within the Army to introduce so-called 'battle-drill' training for junior leaders (in response to the Bartholomew Report's conclusion about the lack of 'offensive mindset'), also hardly represented an upgrade in fighting doctrine. Also, the improved tactics advocated by this new training initiative (such as flanking and pincer attacks at the section and platoon level) did not gain momentum until 1941.⁷⁰⁶

⁷⁰³ Lofting, *We Shall Fight Them*, p. 79.

⁷⁰⁴ TNA, WO 231/247, Army Training Memorandum (No.31), April 1940 and WO 231/252, Army Training Memorandum (No.36), September 1940.

⁷⁰⁵ TNA, WO 231/250, Army Training Memorandum (No.34), July 1940, Appendix B, Experiences in France, No.3, Importance of Liaison with Other Arms.

⁷⁰⁶ For more information on 'battle-drill', see; Tim Harrison Place, 'Lionel Wigram, Battle Drill and the British Army in the Second World War'. *War In History*, Vol. 7. No.4 (November 2000), pp. 442-462.

Brooke's focus upon the combined arms doctrine to repel an invasion

Not surprisingly then, although Brooke's appointment as Commander-in-Chief Home Forces at the end of July 1940 did result in a shift in emphasis as to how best to repel the invasion that many viewed as inevitable, this fell far short of a reappraisal of the Army's overall fighting doctrine. In essence, Brooke took the concept of mobile combined arms warfare and applied it, with great determination, to the forces now tasked with repelling an invasion - with special reference to the strategic reserve, i.e., the so-called 'GHQ Reserve'. It was this force that dominated Brooke's thinking about how an invader might be repelled in the summer of 1940 and thus most of his pronouncements at the time about how Britain's defence should be conducted relate to these two corps of (reasonably) mobile infantry divisions and armoured force – fighting at the operational level of warfare. This was outlined at an early stage in his tenure commanding the Home Forces; indeed, it became a key feature of his first meeting, on 6 August 1940, with his regional Home Forces commanders - and has been well-aired in the historiography. The minutes clearly show Brooke's over-riding priority, i.e., that 'mobile offensive action must be the basis of our defence' and that the key in his eyes to an invader being repelled was for aggressive, large-scale and combined arms counter-attacks, led by the armoured formations of the GHQ Reserve – coupled with much better tactical air support from the Royal Air Force.⁷⁰⁷ This was ambitious in September 1940, not least because of the equipment, training and leadership challenges facing the GHQ Reserve that have already been explored in Chapters One and Two. But crucially, although mobile combined arms warfare was laid out in theory in the Field Service Regulations at the time, it was, as has already been noted, not yet a fighting doctrine that the British Army in the months after Dunkirk was either equipped for or proficient at.⁷⁰⁸

Even though the Battle of France had given British forces ample opportunity to demonstrate their higher level of mobility than either the French or German armies, the nature of the campaign and the relatively few British tanks employed in France, meant that exploiting the potential of truly mobile combined arms warfare had proved difficult – to the extent that it was attempted at all. Thus, in Flanders, although the British Army had shown it could manoeuvre very effectively (as demonstrated by Brooke's rapid movement of II Corps to cover the gap to

⁷⁰⁷ TNA, WO166/1 – war diary of Home Forces GHQ, minutes of meeting of Commander-in-Chief Home Forces Conference, 6 August 1940.

⁷⁰⁸ British Army Field Service Regulations, 1935, Volume III (Higher Operational Formations), Chapter VI, *The Defensive Battle*, Section 25.

the east of Dunkirk created by the capitulation of the Belgian Army), the track record of successful counter-attacks had been modest. Be it at Arras (by elements of the 1st Army Tank Brigade on 20 May), or when assaulting the German Army's bridgeheads on the south side of the Somme (by 1st Armoured Division in early June 1940), or the offensive on the Ypres-Commines canal by units of 5 Division supported by a scratch force of light tanks, such counter-attacks had proved costly and (arguably) not particularly successful – albeit that the actions at Arras and on the Somme involved the added complexity of coordinating with French Army formations.⁷⁰⁹

In terms of defence plans for the UK, both of Brooke's immediate predecessors (Lieutenant General Sir Edmund Ironside and Major-General Walter Kirke before him), had also made use of a 'strategic reserve'. But these forces were smaller than in September 1940, not least because of the needs of the British Expeditionary Force in France from late 1939 onwards. The key point here is that Brooke's commitment to rapid counter-attacking above all else represented a new emphasis – a transition away from what had previously been essentially a defensive strategy to one that Colin Alexander describes as being a significant change for the Home Forces from early August 1940 onwards.⁷¹⁰ Indeed, Brooke did not consult widely on fighting doctrine with his predecessors. His lack of interaction with Lieutenant-General Sir Edmund Ironside, following the latter's dismissal, has been well aired in the historiography. But he also appears to have had minimal contact with Lieutenant-General Sir Walter Kirke, who ran the Home Forces from September 1939 right up to the end of May 1940 and who had been responsible of the so-called 'Julius Caesar Plan' plan to repel an invasion, upon which Ironside had built.⁷¹¹ According to his diary, Brooke met Kirke at a widely-attended lunch to discuss War Office Reforms on 23 August, but did not meet with him again until a brief exchange at GHQ Home Forces on 10 March 1941.⁷¹² All this is important because Kirke's plan had involved the same combination of static and linear defences, combined with the use of mobile units at the local level, all overlaid with a small counter-attacking GHQ Reserve – in much the same manner as Ironside's subsequent plan. Brooke's plan built upon the work of Kirke and Ironside but included much more focus upon counter-attacking at all levels of warfare. But the

⁷⁰⁹ Charles More, *The Road to Dunkirk: The British Expeditionary Force and the Battle of the Ypres-Commines Canal, 1940*, (Barnesley: Frontline Books, 2013), p. 119.

⁷¹⁰ Colin Alexander, *Ironside's Line*, (London: Historic Military Press, 1999), p. 10.

⁷¹¹ For more information on the so-called 'Julius Caesar Plan', see: Newbold, 'British Planning and Preparations to Resist Invasion on Land, September 1939 – September 1940', pp. 40-56.

⁷¹² *War Diaries*, Alanbrooke, entries for 23 August 1940 and 10 March 1941.

notion that none of this appears to have been talked through (even privately) with Kirke or Ironside, is a measure of Brooke's confidence in his beliefs.

Brooke was, though, aware that his views on national defence were fully supported by Churchill. Indeed, it appears that they were influenced by him. Thus, on 17 July, when Churchill visited V Corps (part of Southern Command that Brooke was then commanding), the two men spent some five hours together in Churchill's car following which Brooke noted that he and Churchill shared the same views about the defence of the country and that, 'our defence should be far more mobile and offensive, before the enemy has had time to get established.'⁷¹³ This same car journey clearly resonated with Churchill because he later referred to the same conversation in *Their Finest Hour*, stating that they both 'seemed to be in agreement on methods of Home Defence'.⁷¹⁴ Also, Churchill who (along with Sir Anthony Eden, the Secretary of State for War) clearly wanted to replace Ironside with Brooke as Commander-in-Chief Home Forces, subsequently wrote to him underlining the importance of 'strong counter-attacks'.⁷¹⁵ Furthermore, the War Cabinet minutes for 5 August 1940 reveal a demand from Churchill that, in the event of landings, 'strong counter-attacks by mobile troops would be aimed at any point where a serious lodgment had been affected'. He even went on to stipulate that 10,000 fully equipped men should be on the scene within 6 hours and a total of 20,000 men within 12 hours.⁷¹⁶ As an aside, quite how Churchill arrived at this target is unclear. To have around 10,000 men (i.e., an infantry division) engaging with an invader within just six hours of a landing, would have been a challenge had that formation come from the GHQ Reserve – which presumably was the idea. Such a force would have literally needed to have been waiting just behind the invasion beaches to achieve this – whereas under the plans submitted by Ironside, Kirke and then Brooke, most of the strategic reserve was always shown as being held well back from Kent and Sussex. Even at the peak of the crisis only a small proportion of it was based 'in theatre' given the on-going debate on precisely where an invader might land.

⁷¹³ *War Diaries*, Alanbrooke, entry for 17 July 1940.

⁷¹⁴ Churchill, *Their Finest Hour*, p. 233.

⁷¹⁵ TNA, CAB 80, COS (40) 604, Memo from Sir Winston Churchill to General Sir Alan Brooke, dated 6 August 1940.

⁷¹⁶ TNA, CAB 80/16/1, C.O.S. (40) 604, Minute by Sir Winston Churchill entitled, *Defence Against Invasion*, 5 August 1940.

Thus, it is hard to conclude that Brooke's views on how best to repel an invasion do not owe some of their origin to Churchill himself and that, furthermore, Brooke would never have been given the Home Forces to command had his views not concurred very precisely with those of the Prime Minister. Also, it is hardly surprising that both Brooke and the Prime Minister highlighted increased counter-attacking aggression as being key to defeating an invader. There was, after all, a pervading perception after Dunkirk that the British Expeditionary Force in Flanders had not (with some notable exceptions) excelled against the Wehrmacht. Furthermore, the conclusions of the Army's own Bartholomew Report had highlighted instances of a supposed lack of 'offensive spirit' (not least amongst some junior officers) that have already been mentioned. Finally, Brooke's own experiences fighting the Wehrmacht as a corps commander in France doubtless played a role in crystalising his view that aggressive mobile counter-attacking involving combined arms warfare was the overriding operational doctrine that the GHQ Reserve should be executing in the event of an invasion.

Churchill had also pushed Lieutenant-General Sir Edmund Ironside hard to put counter-attacking at the heart of his defensive plan back in May 1940. Thus, at a meeting of the Defence (Operations) Committee on 19 June - (chaired by Churchill as Minister of Defence), Ironside had had to make it clear that relying upon the GHQ Reserve (as then constituted) to counter-attack and repel an invader was simply too ambitious because, as he stated, '.....effective counter-attacks cannot be carried out without the requisite weapons.'⁷¹⁷ It was for this reason that Ironside's defence plan, devised on the basis of what was possible in June 1940 and conscious of the need to prevent German tanks breaking out across the English countryside as they had in France, had relied heavily upon what he called 'static defences' and so-called 'stop-lines' in addition to a defensive coastal crust – along with a GHQ Reserve force.⁷¹⁸

This policy had resulted in the rapid construction of several significant inland 'stop-lines' – for example the GHQ Line which, by the end of July 1940 when Brooke took charge of the Home forces, ran down the middle of England, circled London and ran on down to Newhaven – with some 2,500 concrete blockhouses along its length.⁷¹⁹ Such inland linear defences, even though they were only to be manned as a last resort, appear to have worried Brooke (and

⁷¹⁷ TNA, CAB 69/1/5, War Cabinet: Defence (Operations) Committee, Minutes of meeting on 19 June 1940.

⁷¹⁸ *Time Unguarded; The Ironside Diaries*, entry for 19^h June and 25 June 1940.

⁷¹⁹ Newbold, 'British Planning and Preparations to Resist Invasion on Land', p. 220. Also, for a full explanation of Ironside's major 'stop-lines' in June 1940 see William Foot, *The Battlefields That Nearly Were*, (Stroud; Tempus, 2006).

Churchill) at many levels – even though a very considerable investment had been made to build them during Ironside’s brief tenure in charge of the Home Forces. Brooke’s attitude appears to have been driven firstly by the challenges of manning these so-called ‘stop-lines’ with troops, but secondly by his experience of the Maginot Line which he had first visited in February 1940. As he noted in his diary at the time, this massive series of sub-terranean defences represented (to him) a huge investment that might succeed only in giving France a false sense of security.⁷²⁰ Given that this opinion had been thoroughly vindicated only a few months later, it is not surprising that Brooke saw Ironside’s network of ‘linear defences’ as problematic. Furthermore, in his (unpublished) memoir that went on to be one of the ‘foundation blocks’ of Arthur Bryant’s 1957 study of him entitled, *The Turn of the Tide*, Brooke criticised the ‘extensive system of rear defence’ that existed before he took over command of the Home Forces - largely because it impeded a defence that was ‘far more mobile and offensive in nature’.⁷²¹ Thus it was that at Brooke’s first Home Forces Commanders Conference in early August, he stated that, ‘the idea of linear defence must be stamped out’.⁷²² Following this pronouncement, work on these large inland ‘stop-lines’ largely stopped and Brooke’s counter-attacking combined arms approach became the sole focus of the (now-enlarged) GHQ Reserve from early August 1940 onwards. However, how this new approach manifested itself ‘on the ground’ during the summer of 1940 as the invasion crisis grew, and how feasible it proved to be given the constraints (particularly in equipment and training), needs examining – and will be explored later in this chapter.

How Brooke wanted the GHQ Reserve to fight if an invader arrived was one thing and is relatively straightforward to pin down. How he wanted the rest of the Home Forces (largely guarding the nation’s coastline) to repel an invasion, or (more likely) attempt to delay its advance inland, is less straightforward to establish. If the GHQ Reserve was essentially a mobile counter-attacking force with one ‘mission,’ the coastal defence divisions had arguably a more complex task which, depending upon where and with what force the invasion came, would have included defending beaches, undertaking local counter-attacks with their limited mobile forces, manning static defences, searching out and neutralising German paratroopers and generally doing all that could be done to delay the advance of an enemy inland until the

⁷²⁰ *War Diaries*, Alanbrooke, entry for 6 February 1940, p.37.

⁷²¹ LHCMA, Alanbrooke: 5/2/16, *Notes on my Life, Volume IV, Home Forces 1940 to 1941*, dated 1954, p. 226.

⁷²² TNA, WO166/1, war diary of Home Forces GHQ, minutes of meeting of the G.O.C. of each Regional Command with the Commander-in-Chief Home Forces, 6 August 1940.

GHQ Reserve arrived ‘in theatre’- something which would doubtless have taken some a number of days at the very least. But, given the multiplicity of tasks facing those formations guarding the coastline, it is important to try to outline how Brooke wanted these local forces to fight - operating as they were largely at the tactical level of warfare (i.e., at divisional level and below). As already stated, he was clear that he wanted local forces to counter-attack wherever possible and that with this in mind at least two companies of each infantry division should be mobile.⁷²³ Furthermore, as he had made clear across the Home Forces, the previous focus upon inland linear defence should be reduced. This was an immediate issue down in the XII Corps area of Kent and Sussex in particular, given that numerous additional local ‘stop-lines’ (at the divisional and corps level) were already in place as will be explored later in this chapter.

But, in addition to this, Brooke also stated when he took command of the Home Forces that he wanted to put more emphasis upon those defences which involved (in his words) ‘all round defence in depth’.⁷²⁴ Such tactics had been shown to work in France. Thus, the historian Martin Alexander, having analysed the performance of the (now re-organised) French Army after Dunkirk, concludes that their new tactic of forming village redoubts, (the so-called ‘Wegand’s Hedgehogs’ built hurriedly between 25 May and 4 June along the line of the Somme and the Aisne), created ‘killing zones’ that stopped the German advance in its tracks and bought the rest of the French Army valuable time.⁷²⁵ It was thus able to retreat in good order to the Seine and the Loire, where it was still fighting hard, with fresh divisions, when ordered to lay down its weapons on 14 June. Furthermore, it could be argued that the British Army’s ‘finest hour’ during the campaign in France was as much about the defence of all-round fortified ‘strong-points’ along the flanks of the ‘Dunkirk corridor’, such as Hazebrouck and Cassel, as it was about its success at holding the Dunkirk perimeter.

Such thinking about all-round defences also appears to have conformed to the Army’s doctrine at the time. Thus, the Field Service Regulations that are most relevant to warfare at the tactical level (i.e., Volume II ‘Operations General’), mention counter-attacks by ‘local reserves’ within the Chapter entitled ‘The Defense’, but the main emphasis is upon defensive positions, defended localities and the defence plans to ensure they can be held. These Field

⁷²³ TNA, WO166/1, war diary of Home Forces GHQ, minutes of meeting of the G.O.C. of each Regional Command with the Commander-in-Chief Home Forces, 6 August 1940.

⁷²⁴ Ibid.

⁷²⁵ Martin Alexander, ‘After Dunkirk: The French Army’s Performance against ‘Case Red’, 25 May to 25 June 1940’, *War in History*, Vol.14, No. 2 (April 2007), pp. 219-264.

Service Regulations also underline the need for local reserves to be ready to man these defensive positions if necessary.⁷²⁶ Where this might have become an issue in September 1940, had an invasion materialised, concerns the rapid increase in the construction of these ‘all-round’ defences that occurred in the summer of 1940, especially in Kent and Sussex. Known collectively as ‘nodal points’ and often constructed at key points where multiple roads bisected ‘stop-lines’, these defences would have had implications for how the front-line troops of 1 (London) Division and 45 (West Country) Division would have fought. These implications and their potential impact upon local fighting capability will also be examined in some detail later in this chapter - given that Kent and Sussex would have been the only focus of a German invasion had one occurred. In summary then, from a tactical perspective down in Kent and Sussex, Brook wanted local XII Corps formations to fight an ‘offensive-defensive’ campaign in the event of an invasion. The extent to which he succeeded needs to be examined.

⁷²⁶ War Office, *Field Service Regulations 1935 Volume II (Operations General)*, Chapter VII, The Defense, Sections 67 to 71.

Implications of the wider military/strategic situation for the execution of a combined arms doctrine

The location of the strategic reserve

Beyond the difficult task of continuing to embed the Army's new combined arms doctrine in the summer of 1940, there were some wider constraints upon the execution of this fighting doctrine by both the GHQ Reserve and the forces of XII Corps in Kent and Sussex that need exploring. The first concerned the location of the country's counter-attacking strategic reserve. As noted earlier, only a few of the formations within the GHQ Reserve in September 1940 had been moved into Kent and Sussex, where (with hindsight) the four 'thrusts' of planned landings for Operation Sea Lion would have occurred. The location of the different formations within the GHQ Reserve is shown as part of Appendix I, but it is important to underline that these forces were widely dispersed as the invasion crisis peaked. Thus, its 'deeper reserves' (3 Division and 21 Army Tank Brigade) were located around Salisbury Plain, whilst the formations within IV Corps were spread from the Thames valley around into Hertfordshire and then beyond into Cambridgeshire.

Only VII Corps, in the Dorking area, could be said to have been positioned for a speedy relocation into Kent and Surrey. Interestingly, Lieutenant-General Sir Andrew Thorne and VII Corps' (Canadian) commander, Lieutenant-General Sir Andrew McNaughton, were sufficiently concerned about the disposition of these latter forces that they discussed moving 1 Canadian Division down into the Worthing area in early September, but ultimately did not action this.⁷²⁷ Crucially, as September progressed, the only GHQ Reserve forces moved into Kent were the 75 infantry and cruiser tanks of 8 Royal Tank Regiment and 5 Royal Tank Regiment that were relocated to the Ashford area by Brooke, along with the five (under-equipped) New Zealand infantry brigades. To this new XII Corp 'reserve' Brooke also added 31 Independent Infantry Brigade in late September. In summary, although all this fitted with Brooke's battle plan to hold the GHQ Reserve well back from the coast and only commit it when the precise location of an invasion was known, to have had so few of the available 'modern' tanks stationed in Kent and Sussex as the crisis peaked, appears to fly in the face of the intelligence as to where the invasion threat was greatest.

⁷²⁷ TNA, WO 179/11, HQ Canadian Corps, General Staff, July to December 1940, Memo from Lieutenant-General McNaughton, G.O.C. VII Corps, following a meeting with Lieutenant-General Sir Andrew Thorne, G.O.C XII Corps, dated 5 September 1940.

The truth is that there was growing evidence in the late summer of 1940 that Kent and Sussex were where the primary invasion threat lay and thus where a counter-attack would need to take place. That said, in fairness to Brooke, the task of concentrating the GHQ Reserve forces within easy reach of where they would be needed in the event of a landing was made more challenging by the on-going debate within the Home Forces, never mind within the Chiefs of Staff Committee and the Defence (Operations) Committee (chaired by Churchill), as to where an invasion was likely to take place. Throughout the first half of 1940, the sentiment had been that the East Coast was most vulnerable not least because the flat countryside of Norfolk, Suffolk and much of Essex was clearly more suited to invading armoured forces than the more heavily wooded and narrow-laned ‘bocage’ country of deepest Kent and Sussex. Broadly speaking, this notion began to change after Dunkirk. By June, the view of the Joint Intelligence Committee was that the most likely places for German landings were the Suffolk coast and the coast of north Kent, simultaneously, with a view to executing a fast ‘pincer movement’ upon London.⁷²⁸

However by August, the consensus was changing again with the recognition that, with the French channel ports now in German hands, the south-east was more vulnerable than had been first thought. But the perceived threat to the east coast continued to loom large, not least in the mind of Churchill, who wrote to the Chiefs of Staff’s Committee in August categorising his views of the probability of an invasion in different sectors. According to him the risk to the coast from the Forth to the Wash was a ‘3’, the threat to the coast from the Wash down to Dover was a ‘5’ and the vulnerability of the coastline from Dover to Land’s End was a mere ‘1.5’.⁷²⁹ This may be one reason why, as late as 30 August (and well after Brooke had taken control of the Home Forces) the War Office organised ‘Exercise Cambridge’, a scheme that was predicated upon German landings on both the eastern coast and the Kent coast – resulting (according to its scenario) in ‘deep bridgeheads’ in the Whitby, East Anglia and Folkstone areas.⁷³⁰ Interestingly, during this exercise IV Corps played the role of the German Army in and around Bury St Edmunds, but there is no record of how successful it was at attacking the defenders – or the lessons it learnt from the experience. The key point though is that just one

⁷²⁸ TNA, CAB 8013/3, War Cabinet: Chiefs of Staff Committee, Memorandum No. 465, Report by Joint Intelligence Committee, *Seaborne and Airborne Attack on the United Kingdom*, 15 June 1940.

⁷²⁹ TNA, War Cabinet: Chief of Staff’s Committee, minutes of meeting on 12 August 1940.

⁷³⁰ TNA, WO 166/231, war diary of IV Corps, Intelligence, June 1940 - March 1941, *Narrative for Exercise Cambridge*, 31/31 August 1940, Indexes No.6 and No.6A.

week before the ‘Cromwell Alert’ was sent out by Brooke warning of imminent invasion, the east coast was still seen by the War Office as being a top priority invasion target.

Even by 8 September, despite the (well-documented) photographic evidence of barges being amassed in French and Belgian ports, (something which prompted all five bomber groups of the Royal Air Force being ordered to attack them by day and night), Brooke nevertheless recorded in his diary, as bombs fell around The Army and Navy Club on the second night of ‘The Blitz’ that, ‘Everything points to Kent and East Anglia as the two most threatened points.’⁷³¹ This is interesting as, on the very same day, within the Intelligence Staff of Home Forces General Headquarters, the view appears to have been slightly different. According to their war diary, the Intelligence Staff noted that, ‘The increase in the numbers of barges in ports like Ostend and Dunkirk, increases the threat to East Kent as opposed to that of East Anglia.’⁷³² Their report goes on to state that, in their view, East Anglia was still vulnerable because it was furthest from the resources of the Royal Navy, but their conclusion that the overall threat had changed is clear. And yet, it was not until three days later, on 13 September, (two days after Sir Winston Churchill had made a speech to the nation warning of the strong likelihood of imminent invasion), that Brooke confided to his diary that, ‘Everything looks like an invasion starting tomorrow, from the Thames to Plymouth!’⁷³³ It is important to note that both IV Corps and VII Corps were, by now, also aware of this greatly increased threat to the south-east coastline. The Intelligence Staff of IV Corps in their Buckinghamshire headquarters specifically noted this increased threat their war diary.⁷³⁴ Furthermore, the war diary of VII Corps’ Intelligence Staff also gives a comprehensive description of the new threat posed by the build-up of a potential invasion fleet opposite the south coast as well as noting that ‘extensive embarkation and disembarkation exercises have taken place around the Cherbourg area’.⁷³⁵ One can only assume that both corps had received this new intelligence from Home Forces Headquarters. Either way it all pointed towards the south-east being not merely the main target of enemy landings, but the only one.

⁷³¹ *War Diaries* Alanbrooke, entry for 8 September 1940.

⁷³² WO 166/3, war diary of Home Forces, General Headquarters (Intelligence) May 1940 – December 1940, document entitled, *Review of the Situation*, paragraph 4, dated 8 September 1940.

⁷³³ *War Diaries* Alanbrooke, entry for 13 September 1940.

⁷³⁴ TNA, WO 166/231, war diary of IV Corps, Intelligence, June 1940 - March 1941, entry for 10 September 1940.

⁷³⁵ TNA, WO 179/11, HQ Canadian Corps, General Staff, July to December 1940, VII Corps Intelligence Commentary No.6, Period 14 September to 21 September

Yet little seems to have changed. As late as mid-September, the war diary of 43 (Wessex) Division (within IV Corps) reveals an Operation Order listing its assembly areas in preparation for an action by IV Corps to repel an invasion of the Suffolk coast.⁷³⁶ This is important because it means that around a quarter of the GHQ Reserve's forces in September 1940 were focused upon repelling an invader well away from the south-east, despite the clear photographic intelligence showing an ever larger invasion fleet now sitting in the French channel ports. In *Their Finest Hour*, Churchill credits Brooke for being the person who pointed out that the increasing threat to the south-east was beginning to equal that posed to the east coast, by early September.⁷³⁷ This point is corroborated by a new biography of Brooke, by Andrew Sangster, published in 2021.⁷³⁸ However, one is left wondering why the threat to the east-coast had not been downgraded to almost nil by then - especially given that as far back as 6 August, German e-boats had been spotted carrying out close-quarters reconnaissance just off the Dungeness coast.⁷³⁹

Thus, despite the compelling evidence, most of the GHQ Reserve's formations stayed where they were, rather than being moved closer to Kent and Sussex. This is doubly noteworthy given that one of the key criticisms made by the Chiefs of Staff Committee when presented with Ironside's original plan to defend the country in late June 1940, was that the GHQ Reserve forces were too far back. In their eyes it was vital to move them further forward to enable a major counter-attack to take place nearer the coast before the enemy became too established – a point that Ironside took on board and subsequently responded to.⁷⁴⁰ In particular, in the view of this study, it is strange that 21 Army Tank Brigade and 3 Division were left where they were (in Wiltshire and Somerset) by Brooke. Not only was 3 Division a regular force (that had previously been commanded in France by Montgomery), but it had been training hard with 21 Army Tank Brigade's infantry tanks in an anti-invasion role all summer. For example, 7 Guard's Brigade undertook a brigade exercise on 28 August 1940 to practice counter-attacking, the scenario for which also involved the Royal Air Force spraying gas onto enemy troops as part of its scheme.⁷⁴¹ In fairness, Brooke would have (presumably) needed the backing of the

⁷³⁶ TNA, WO 166/978, war Diary of 128 Brigade Headquarters, (43 Division) September 1939 – December 1941, Operation Order No.4., dated 11 September 1940.

⁷³⁷ Churchill, *Their Finest Hour*, p. 262.

⁷³⁸ Andrew Sangster, *Alan Brooke: Churchill's Right-Hand Critic*, (Casemate: Oxford, 2021), p. 65.

⁷³⁹ TNA, WO166/4657, war Diary of 6th Battalion, Somerset Light Infantry, 135 Brigade, 45 (West Country) Division, entries for 12 August and for 3 September 1940.

⁷⁴⁰ TNA, CAB 80/13/2, War Cabinet: Chiefs of Staff Committee, COS Report No. 495, Memorandum on Home Defence to Commander-in-Chief Home Forces, 26 June 1940.

⁷⁴¹ TNA, WO 166/4097, war diary of the 1st Battalion, The Grenadier Guards, 28 August 1940.

Chiefs of Staff Committee to move these forces, but this study has found nothing in the minutes of the Chiefs of Staff Committee from August or September 1940 to indicate that he made such a request. Nor has evidence come to light that Brooke appealed directly to Churchill to get these forces moved nearer to the south-east coast.

This is important because moving the ninety or so Matilda and Valentine infantry tanks of 21 Army Tank Brigade from Salisbury Plain into say, Sussex, would have taken time. For one thing, flat-bed trains would have had to have been on hand and tank crews would have needed to be practiced at loading their vehicles - something that 1 Army Tank Brigade in East Grinstead did again and again, according to its war diaries. It took many hours. But no such activity is referred to in the various war diaries for 21 Army Tank Brigade consulted by this study. And movement by road was even more problematic given the shortage of tank transports and the challenge of getting long convoys down narrow roads into Kent and Sussex, even without the additional challenge of civilians trying to drive the other way and the inevitable interventions of the Luftwaffe.

This issue was something that VII Corps was very aware of. In addition to the plan (noted earlier) to bring 1 Canadian Division to Worthing in September, Lieutenant General Andrew McNaughton at one point also debated bringing this force down from Dorking to Tenterten (on the eastern edge of the Sussex Weald), so that it was pre-positioned to counter-attack in the event of an invasion. Instead, it was decided to keep the division where it was but nevertheless to practice the major road movement between Dorking and Tenterten. Thus, on 1 September, three columns, each of one hundred vehicles, from 1 Canadian Division, undertook a road movement exercise to 'test' each of three routes to the coast that had been explored and which would have been used depending upon where, precisely, along the south coast a landing took place. This exercise also involved both the Division's Traffic Control Companies and Police Special Constables, to keep civilian traffic off the road.⁷⁴²

Crucially, it all took time. The war diary of 1 Armoured Division reveals that a second movement exercise along the same lines was held in October 1940 where, once again, columns used three different routes from the Dorking area towards Kent and Sussex. Getting the entire

⁷⁴² TNA, WO 179/11, war diary of HQ Canadian Corps, General Staff, July to December 1940, VII Corps Operation Instruction No.3., Appendix 'B', dated 1 September 1940.

division into a counter-attacking position at the so-called, 'Zone A' (the north to south defensive line running from Ham St - Ashford – Charing) would have involved (according to the operational instruction) driving at a stated speed of 25 miles in two hours (with a twenty-minute halt every two hours) and a daylight vehicle density of just twenty vehicles to the mile. Furthermore, many senior commanders (including Brooke as noted earlier) had been vocal for some time about the likely impact of refugee traffic in the event of an actual invasion. In summary, it is fair to assume it would have taken two to three days (at the very least) to get 1 Armoured Division, plus its cruiser tanks, from Dorking to 'Zone A', given in the additional complexity both of significant civilian traffic and of Luftwaffe interdiction.

Also, it is interesting to note that the sixty or so cruiser tanks of 2 Armoured Brigade, based in Warminster in early September 1940, (and very much part of the GHQ Reserve) would not necessarily have headed towards the south-east in the event of an invasion. At least, not initially. According to the war diary of its key unit (containing the cruiser tanks), the 2nd Dragoon Guards (or The Queen's Bays as they were known), when the 'Cromwell alert' reached them at 10pm on 7 September, its three squadrons of tanks (including around 50 A13 cruiser tanks) duly followed pre-determined plans. But these do not appear to have been focused upon getting The Queen's Bays, as a unit, down into the vicinity of Kent or Sussex as quickly as possible. As the regiment's war diary describes, B Squadron did at least drive 40 miles through the night directly eastwards to the market town of Barton Stacey (north of Southampton). However, C Squadron, prepared instead to move its tanks by rail to Northampton whilst A Squadron began moving its tanks to prepared defensive positions around Warminster (just south of Bath).⁷⁴³ It is hard to criticise these manoeuvres without any insight into the context behind them, but on the face of it they appear odd even allowing for the fact that the 'Cromwell alert' signaled that an invasion was thought imminent, not that it was actually happening. But what The Queen's Bays executed that night seems a far cry from the notion of moving, as a counter-attacking force, towards either the southern or the south-eastern coastline. Given that Brooke visited The Queen's Bays on 24 August, (according to their war diary), one cannot help wondering what his reaction was to this plan – assuming he was briefed on it. Had he been so informed the idea that, on receipt of the 'Cromwell' password, some 14% of his entire force of 350 or so 'modern' tanks would have moved in three different directions,

⁷⁴³ TNA, WO 166/1369, war diary of 2nd Dragoon Guards, (The Queen's Bays), 2 Armoured Brigade, entry for 7 September 1940.

would (presumably) have concerned him - given that on the night of 7 September (as already noted) his diary makes it clear he was convinced an invasion was on its way.

The logistical challenges of getting IV Corps, down into Kent and Sussex at pace were even more daunting, given that it remained north of the River Thames throughout the crisis. Furthermore Brooke decided, on 8 September, to provide even greater protection to East Anglia by moving two brigades of 43(Wessex) Division, (130 and 130 Infantry Brigades) from Hertfordshire across to Essex – whilst retaining 128 Brigade and the divisional headquarters in Hertfordshire.⁷⁴⁴ It would be unfair to criticise Brooke's decision too much given that it was made without the benefit of the hindsight, but it meant that one third of IV Corps' infantry forces were now in East Anglia. Moving them quickly into the south-east would have been additionally hard following the damage done to London's roads after the start of the Blitz on 7 September. However, it is by no means clear that, in Brooke's eyes, 43 (Wessex) Division was ever earmarked to deploy down into the south-east to counter an invasion, at least initially. This study has found no evidence in the war diaries of 43 (Wessex) Division to indicate that major divisional moves down into Kent and Sussex were practiced during September 1940. Indeed on the night of the 'Cromwell Alert' on 7 September, the formations of the division that were still in Hertfordshire were escorted by police to Hatfield Forest in order to be ready to counter-attack an assault on London from the east - according to the testimony of one of its officers, Major Hall, from the 4th Battalion of the Dorsetshire Regiment.⁷⁴⁵

In summary then, moving counter-attacking forces in September 1940 would have been challenging, something also underlined by the various larger-scale (and combined arms) anti-invasion exercises that took place in 1941. Basil Liddell Hart studied one such exercise in Southern Command in early 1941 and was dismayed at just how long it took the counter-attacking forces to mount an assault against the invaders. 'They didn't even arrive until the second day', he noted.⁷⁴⁶ And on top of this, any infantry or tanks being moved by road or rail, would (as noted earlier) have been vulnerable to Luftwaffe air attack, at least during daylight hours. This risk was one of the key 'learnings' not just of the campaign in France, but also of Exercise Cambridge in August 1940 – where formations were criticised for leaving vehicles

⁷⁴⁴ TNA, WO 166/1, war diary of Home Forces Headquarters, Appendix A: Location List No.4, 11 September 1940.

⁷⁴⁵ BBC People's War, testimony of Major Hall, A4543670.

⁷⁴⁶ LHCMA, The Liddell Hart Papers: 1/292/1776.

out in the open too long where they could be spotted from above.⁷⁴⁷ To underline this danger, it is worth noting that on 3 October 1940, six carriers from A Squadron of the 1st Royal Gloucester Hussars were destroyed in seconds by a sudden air attack whilst on an exercise in the Surrey countryside.⁷⁴⁸ This ‘threat from above’ would (most likely) have been a significant impediment to getting formations to where they needed be.

Indeed, it is interesting to consider the Wehrmacht’s own assessment of the time it would take for GHQ Reserve forces to arrive in the invasion area in the event of Operation Sea Lion being executed. This can be ascertained thanks to a series of British reports compiled in 1950, under the auspices of the Enemy Documents section within the Historical Branch of the Cabinet Office. The material stemmed from a combination of senior Wehrmacht testimonies, dairies and captured Wehrmacht documents. In summary, this analysis reveals that the German High Command was working on the basis that it would take the British five days to assemble and deploy a significant mobile force for a counter-attack in the south-east. Also, it was felt that bottlenecks on many roads going south would occur, given that many of them were narrow and that they would be targeted by the Luftwaffe.⁷⁴⁹ To state the obvious, five days would (most likely) have allowed a German invading force to establish a significant beachhead, even with the Royal Navy intervening to try and prevent it. It is also worth remembering just how long large-scale counter-attacks took to organise, even later in the war. At Salerno, for example, Forczyk states that it took the German Army a whole four days to get their panzers into action.⁷⁵⁰ In summary then, delays in getting key formations of the GHQ Reserve into a position where they could counter-attack might have severely limited their capability to prevent an irreversible penetration inland by German forces.

Finally, as has been shown, the Air Force would have struggled to undertake the long list of air support requirements that the GHQ Reserve would have demanded as they arrived in the XII Corps area and began to counter attack - never mind XII Corps’ own needs for air-force support (as laid out in Lieutenant-General Sir Andrew Thorne’s defence plan). Within this plan,

⁷⁴⁷ TNA, WO 166/231, war diary of IV Corps, Intelligence, June 1940 - March 1941, *Narrative for Exercise Cambridge*, 31/31 August 1940, Indexes No.6 and No.6A.

⁷⁴⁸ TNA, WO 166/797, war diary of 1 Armoured Division, General Staff, (VII Corps), June. 1940 – June 1941, entry for 3 October 1940.

⁷⁴⁹ TNA, CAB 101/347, German Military Preparations for Operation Sea Lion; German Estimate of the British Army, July to December 1940, Paper Entitled; *Sea Lion, 1940, German Estimates of the British Army, July to September 1940*, Appendix B – Summary of Appendix 1 to 16 Army’s Preliminary Instruction for ‘Sea Lion’, 9 September 1940 [Source: 16 Army file no.14/558 (3)].

⁷⁵⁰ Forczyk, *Operation Sea Lion*, p. 236.

there is a clear expectation that the Air Force's roles along the coast of both Sussex and Kent in the event of an invasion, would have included; defending vital areas against attack, gaining information via reconnaissance, attacking convoys and surface craft as they approached the coast and then attacking enemy forces establishing themselves in this country.⁷⁵¹ It was a full list. And according to one of his notebooks, the only air support he could have called upon directly involved six Bristol Blenheim's from No.15 Army Co-Operation Squadron, based in Cambridgeshire, each armed with two 250lb bombs and ten 40lb bombs. It is perhaps ironic that, in the event of an invasion, most likely at dawn, the first British aircraft on the scene over the beaches around Camber Sands, Romney Marsh, Norman's Bay and Newhaven might well have been of the one type that the Air Ministry had, in its report of August 1940 (already noted), gone out of its way to say was not particularly suited to tactical air support. Circling overhead, waiting to meet them would (doubtless) have been every available Luftwaffe fighter. 'The Blenheim's can be expected to take-off 35 minutes after they have been requested', Thorne wrote in his personal notebook in the summer of 1940.⁷⁵² This was the reality.

The challenge of Churchill's interventions and the competing demands of imperial strategy

The location of the various formations within the GHQ Reserve was one key constraint that had little to do with fighting doctrine. But there were others. For Brooke, like Portal, found himself having to cope with a considerable amount of pressure from Churchill, not merely in terms of how the Home Forces would fight an invader, but on a range of other invasion-related issues. As already noted, it appears that it was Churchill, as much as Brooke, who was the crucial advocate for the tactic of aggressive counter-attacking by mobile forces at all costs, in the event of an invasion. For evidence of this one need look no further than a note Churchill wrote to Dill, Ironside and Ismay in early July 1940, demanding that more divisions be moved back from the beaches and inserted into the mobile reserve where they could resume their training in counter-attacking.⁷⁵³ Many of Churchill's assertions on this subject were rebuked in writing by Ironside the next day - not least because in his view the Germans were expected to attack across a wide front.⁷⁵⁴ Churchill, in turn, replied to Ironside two days later, again

⁷⁵¹ NAM, Private Papers of General Sir Andrew Thorne, item 3508, XII Corps Defence Policy, 1940.

⁷⁵² NAM, Private Papers of General Sir Andrew Thorne, item 3495, Defence needs of XII Corps, Exercise Book, 1940.

⁷⁵³ TNA, CAB 120/438, War Cabinet, Home Defence, Military Invasion, Memo from Churchill to the Commander-in-Chief, Home Forces, the Chief of the Imperial General Staff and Major-General Ismay, dated 8 July 1940.

⁷⁵⁴ TNA, CAB 120/438, War Cabinet, Home Defence, Military Invasion, Letter from Lieutenant-General Ironside to Churchill, dated 9 July 1940, paragraph 2.

demanding that more divisions be pulled back so that ‘their training may proceed in the highest forms of offensive warfare and counter-attack’. Furthermore, Churchill’s eagerness for mobile counter-attacking is also borne out by the account of the dinner in at Chequers in early July, (previously referred to in Chapter Two), to which Lieutenant-General Sir James Marshall-Cornwall was invited, as the new commander of III Corps. Churchill was (according to Marshall-Cornwall) delighted to learn that, not only were III Corps now focusing exclusively upon offensive training exercises rather than defensive tactics, but that the Corps now had a new motto, ‘*Hitting not Sitting*’.⁷⁵⁵ Churchill therefore had firm views when it came to how to deal with an invader.

The fact that Brooke shared so many of Churchill’s views as to what was wrong with the British Army in the light of campaigns in both France and Norway, was probably one of the key reasons (along with his success in France) that led to Brooke being elevated to run the Home Forces at the end of July 1940. The irony of this is that what whatever had been shown to be lacking about the Army’s performance in Norway, it was Churchill himself who, as Simon Heffer makes clear, was ultimately responsible for ‘the fiasco of British intervention in Norway’ in the first place.⁷⁵⁶ Be that as it may, the key point here is that although some four months after the Battle of Narvik, Churchill and Brooke were in full agreement as to how to repel an invasion, for Brooke to challenge Churchill on this point (as Ironside had done) would doubtless have been both unproductive and potentially career limiting. Brooke would have been aware when appointed to lead the Home Forces that Churchill’s relationship with Field Marshal Sir John Dill, the Chief of the Imperial General Staff was, according to Alex Danchev’s illuminating article, already showing signs of strain - despite that fact that Dill had only been appointed by Churchill in May 1940.⁷⁵⁷ Thus it would have been obvious to Brooke that an opportunity might open up to succeed Dill in due course - and that a disagreement with Churchill about how to repel an invasion might jeopardise this. The parallels with the rise of Charles Portal to the position of Chief of the Air Staff in October 1940 (following the demise of Air Chief Marshal Sir Cyril Newall), are hard to ignore. To achieve this, Portal, in addition to his obvious strategic intellect and his talents as a leader needed to be completely aligned

⁷⁵⁵ General Sir James Marshall-Cornwall, *Wars and Rumours of Wars*, (London, Secker & Warburg, 1984), pp. 168-170.

⁷⁵⁶ Article in *The New Statesman*, by Simon Heffer, entitled ‘Why it’s Time to Debunk the Churchill Myth’, dated 15 January 2015.

⁷⁵⁷ Alex Danchev, ‘Dilly- Dally or Having the Last Word; Field Marshal Sir John Dill and Winston Churchill’, *The Journal of Contemporary History*, Vol.22, No.1 (January 1987), pp. 21-44.

with Churchill's strong belief in the doctrine of 'strategic bombing' in the summer of 1940. Having been put in charge of Bomber Command only six months earlier, Portal was able to satisfy that criterion. Had he wavered in his commitment to this doctrine, as his predecessor at Bomber Command, Air Marshal Sir Edgar Ludlow-Hewitt had done, Churchill is likely to have sought someone else for the task.⁷⁵⁸

According to his biographer, David Fraser, Brooke had to become very good at the art of 'handling' Churchill as the war progressed - something many other senior officers struggled to do. Ironside, Dill (who found his eighteen months as Chief of the Imperial general Staff to be 'purgatory' according to Alex Danchev) and Wavell (who was summarily dismissed from his role in the Middle East in the middle of 1941), all struggled in this regard. But in the middle of 1940, with little in the way of battlefield experience at the Corps level other than his command of II Corps in France (which had involved some three weeks of combat) and his even briefer tenure commanding the second British Expeditionary Force in June, Brooke would have been understandably reticent to disagree with Churchill fundamentally on fighting doctrine. For Brooke had (most likely) seen and heard enough to know that, whereas the Prime Minister relished an argument, he did not welcome prolonged dissent in the face of his (many) ideas. Indeed, Churchill's close advisor and the Secretary of the Chiefs of Staff Committee, General Ismay, wrote to Brooke just after the war saying that, in his opinion, the hardest part of dealing with the Prime Minister had been that, 'Our beloved leader regarded any disagreement with his views as a personal affront'.⁷⁵⁹ Not only was disagreeing with Churchill a potentially risky thing to do, he was also challenging to deal with in other ways that have been well-documented. Thus, the historian Leo McKinstry, in his book *Operation Sea Lion*, describes Churchill during his time as First Lord of the Admiralty as 'full of energy', but also noted that his enemies accused him of exuding an enthusiasm that could quickly turn to 'impetuosity' and that they also regarded him as 'dangerously unreliable'.⁷⁶⁰ And Daniel Todman accuses Churchill of dominating discussion too much, both within the War Cabinet and within the Defence (Operations) Committee, which he chaired. He also accuses him of interfering too much in matters that should have been left to commanders on the ground.

⁷⁵⁸ For more information on Ludlow-Hewitt's views of what Britain's bomber force could and could not achieve in 1940 see, Baughen, *The RAF*, Chapter Two, 'The Bomber Reigns Supreme'.

⁷⁵⁹ LHCMA, Ismay Papers, IV/Ala/1D/1, Letter from Ismay to Alanbrooke, 25 June 1946.

⁷⁶⁰ McKinstry, *Operation Sealion*, 2014, p. 8.

For Churchill tended to delve (combatively) deep into detail, especially as the invasion crisis peaked, which made life more difficult for Brooke – and others. One example of this tendency is demonstrated by a long debate in August 1940 within the Defence (Operations) Committee, about how the number of fighter squadrons was to be increased. Essentially, Churchill repeatedly questioned the assumptions behind the Air Ministry's forecast pilot wastage of 746 pilots per month - which he considered overly pessimistic. It might be argued that this was exactly what a Defence Secretary should have been doing. But, given the considerable number of other issues facing the nation and the fact that these assumptions were challenged by Churchill again and again in the Defence (Operations) Committee throughout August 1940 (and given that the Secretary of State for Air himself had to become involved), it does raise doubts.⁷⁶¹

Another example from September 1940 concerns Churchill's pre-occupation with the likelihood that fog in the Channel might trigger an invasion attempt. Having written a memo on the subject to Chief of the Naval Staff, Churchill appears to have been unimpressed by the report that was sent to him by way of reply on 14 September, which concluded that the risk of fog occurring at that time of year was small.⁷⁶² His further questioning spawned another report on 20 September, this time from the Inter-Services Committee, which also concluded that fog was not a big concern.⁷⁶³ But, Churchill's focus now appears to have shifted to the related question of the capability of Royal Naval destroyers to detect an invasion fleet in foggy conditions using radar. This led to a further report being compiled on 22 September (explaining that, as yet, only ten destroyers had the system, known as 'AVS', that could detect a flotilla in fog within a three-mile range), this time signed by the (then) Chief of the Air Staff, Sir Cyril Newall, together with the Vice-Chief of the Naval Staff and the Chief of the Imperial General Staff. It was sent to Churchill with a six page appendix.⁷⁶⁴ But the very next day Churchill wrote back to them demanding that the roll-out of AVS sets to destroyers be accelerated and then also questioning whether it was unwise to assume that German navigation beams could be used by the Royal Navy to find invasion flotilla's in the channel – on the basis that he had talked to Air Marshall Sir Hugh Dowding at Fighter Command, who had questioned the

⁷⁶¹ TNA, CAB 69/1/8, War Cabinet: Defence (Operations) Committee, Minutes of meetings on 14 August and 23 August 1940.

⁷⁶² TNA, CAB 80/19/1, War Cabinet: Chiefs of Staff Committee, Memoranda Nos. 751-800, C.O.S. (40) 752, Memorandum by the Chief of the Naval Staff entitled; *Possibility of Attempted Invasion in Fog or Weather of Low Visibility*, 14 September 1940

⁷⁶³ TNA, C.O.S (40) 759, 20 September 1940.

⁷⁶⁴ TNA, C.O.S. (40) 766, 22 September 1940

validity of this tactic.⁷⁶⁵ Clearly, these were desperate times, with an invasion expected imminently, but the intensity of the interaction between Churchill and these various very senior officers is notable and would (one assumes) have been a large consumer of their time. Also, it is hard to see, with hindsight, how it added much value, given that (presumably) the Royal Navy, of all the services, was very aware of the dangers of fog and had already pushed hard for the maximum production of the latest radar sets for their destroyers operating in the Channel. But these examples go some way to demonstrating what Brooke would have been up against if he had sought to change Churchill's views on something like the Army's fighting doctrine in response to an actual invasion in September 1940.

Furthermore, the effort Brooke had to expend 'managing' Churchill would probably have been increased considerably in the event of an invasion because, in Brooke's view, the structure of the overall command system was flawed. As he noted in his diary, having each of the three services reporting up separate lines to the Minister of Defence, (i.e., Churchill himself), rather than through a supreme military commander was potentially problematic.⁷⁶⁶ Firstly, it allowed Churchill more readily to intervene directly in military decisions. This was something he had done during the campaign in France –according to Lieutenant-General Pownall, Chief of Staff of the British Expeditionary Force. For instance, by ordering British Forces on 23 May to link up with the French First Army and to attack to the south-west towards Bapaume and Cambrai in an attempt to prevent the Wehrmacht's encircling advance, Churchill (in Pownall's eyes) was demanding something which could not be achieved. As Pownall wrote at the time, 'Can nobody prevent him trying to conduct operations himself as a super Commander-in-Chief?'⁷⁶⁷

But there was also a second problem with the reporting structure. According to David Fraser, Brooke feared that, in the event of an invasion, each service would lobby Churchill directly and that, given his impulsive nature, the wrong decisions might be made about scarce resources.⁷⁶⁸ Any decisions taken by the Defence (Operations) Committee that impacted upon the ability of the GHQ Reserve to get where they were needed to be at speed, or upon the air support that they might rely on, or upon their ability to draw upon deeper reserves (such as 21 Army Tank Brigade's ninety modern infantry tanks on Salisbury plain), would have had an

⁷⁶⁵ TNA, C.O.S. (40) 766, 23 September 1940

⁷⁶⁶ *War Diaries*, Alanbrooke, entry for 26 July 1940.

⁷⁶⁷ Henry Pownall, *Chief of Staff, The Diaries of Lieutenant-General Sir Henry Pownall: Volumes I and II*, (London: Leo Cooper Ltd, 1974), entry from 22 May 1940, p. 331.

⁷⁶⁸ David Fraser, *Alanbrooke*, (London: Harper Collins, 1982), p. 155.

impact upon overall fighting capability. There is little doubt then, that trying to influence Churchill was a challenge for most people who encountered him and that, in September 1940, the newly promoted Brooke would have been no exception. Thus, for all his capabilities as Prime Minister, it is fair to conclude that Churchill's tendency to get involved at a granular level could well have proved a constraint, given the complexity of executing a combined arms doctrine. This would (most likely) have been especially the case if the Army's first counterattacking engagements with German forces on British soil had not gone well.

One further constraint that Brooke and the Home Forces had to operate under in 1940 was that the threat of invasion was only one of the priorities that Churchill had to grapple with. Indeed, if there was such a thing as a 'national policy' up to this point in 1940, it was clearly to focus upon protecting the British Empire above all else. Prior to the German attack on the west almost no one had predicted that Great Britain herself would be threatened with invasion and this unwelcome news thus challenged that 'national policy' - particularly as it came at the precise moment that Britain's interests in the Mediterranean were being threatened by Italy. But this was only the beginning. Protecting the British Empire as a 'national policy' was a huge strategic distraction both for Churchill and his ministers. As Barry Posen puts it, Britain's elites knew that she lacked the resources to preserve 'both her global empire and her European interests'.⁷⁶⁹ To get a 'snapshot' of the strategic complexity involved in protecting the British Empire in the summer of 1940, especially following the added challenge of the collapse of France, one has only to consult the papers being discussed at the various Chiefs of Staff Committee meetings. Thus, a paper entitled *Future Strategy*, prepared by the Joint Planning Sub-Committee on 21 August, urged the Chiefs of Staff to 'Look beyond the threat of a major enemy assault on the United Kingdom' and to examine instead what it called Germany's 'Oil Problem'. It advocated the destruction of Germany's oil refineries and also recommended the immediate reinforcement of the Middle East to prevent Germany driving the British fleet from the Eastern Mediterranean and thus ensuring that she could bring in oil by sea from Romania and Russia. The (very real) threat of Germany invading Palestine and then Iraq in pursuit of oil was also discussed.⁷⁷⁰

⁷⁶⁹ Barry Posen, *The Sources of Military Doctrine*, (Cornell: Cornell University Press, 1984), p. 141.

⁷⁷⁰ TNA, CAB 80/16/4, War Cabinet; Chiefs of Staff Committee, Memoranda, C.O.S. (40) 647 (J.P.) entitled; *Future Strategy*. Note by the Joint Planning Sub-Committee submitting a draft appreciation for the Chiefs of Staff, 21 August 1940.

But oil was only one strategic issue facing Britain. In the month of August 1940 alone, the Chiefs of Staff Committee debated a bewildering array of other concerns, many of which related to the ‘primary’ policy of protecting the British Empire. These included; the situation in West Africa (especially the need to capture Dakar before it fell into German or Italian hands), proposed operations in East Africa (to secure Sollum and Moghadishu from the Italians), the question of whether to send British troops to Crete, the need to reinforce Malta and the situation in the Far East, (including how to help the Dutch East Indies if it were invaded by the Japanese). All these needed serious consideration before the Committee could also debate the threat of a German invasion through Eire and the further danger of an invasion of the Shetland Islands, aimed at neutralising the Royal Navy’s bases there, as a precursor to an invasion of England.⁷⁷¹ And on the 15 August, The Battle of Britain started in earnest. It is hardly surprising therefore given the sheer number of longer-term issues, that the threat to the UK itself was seen as almost a ‘secondary issue’ by Churchill. That said, he appears to have taken the threat of invasion more seriously than some thought at the time. From 6 July onwards he personally requested a daily update from the Joint Intelligence Sub-Committee on the enemy’s preparations for invasion – the first of which was duly on his desk that evening and contained a warning, even back then, about abnormal barge traffic – something Churchill ringed in red ink.⁷⁷² But it was only the report some eight weeks later, on 7 September, with its conclusion that an invasion appeared to be imminent, that finally convinced Churchill that the danger was all too real - something which in turn triggered Brooke to issue the ‘Cromwell alert’. Only then was the Royal Navy finally ordered to stop all boiler-cleaning and only then did the Prime Minister prepare to address the nation and explain what to do if an invader came.⁷⁷³

Finally, the War Cabinet’s decision to send a total of two hundred ‘modern’ tanks to the Middle East (already referred to in Chapter Two), is a good practical example of the implications of Britain’s national policy being at odds with its imperial strategy in September 1940. For the execution of a doctrine of mobile combined arms counter-attacking would have been impeded by the resulting loss of ‘modern’ tanks just when they might have been needed most. It was also a decision that Brooke vehemently disagreed with as the Autumn of 1940

⁷⁷¹ TNA, CAB 80/16/1 and CAB 80/16/2, memoranda produced for the War Cabinet: Chiefs of Staff Committee, August 1940.

⁷⁷² TNA, CAB 120/438, War Cabinet, Report entitled: *Intelligence Summary prepared by the Joint Intelligence Sub-Committee*, dated 6 July 1940, paragraph 18.

⁷⁷³ TNA, CAB 80/18/1, War Cabinet: Chiefs of Staff Committee, Memoranda Nos. 701–750, C.O.S (40) 721, Report by the Joint Intelligence Sub-Committee entitled; *Possible German Action Against the United Kingdom*, 7 September 1940.

approached, arguing that, ‘There is no closed season for invasion’.⁷⁷⁴ For as far as he and the Home Forces (and the British public) were concerned, the danger of invasion continued to be all too real throughout the late autumn and winter of 1940 and even on into the spring of the following year, requiring little more than a few days of calm seas and favourable tides to become a reality. Also, one cannot help wondering what either the British public or the frontline formations of the Army would have thought had they had been made aware in late October 1940 (when the perceived invasion threat was still seen as high), that along with the shipment of 100 ‘modern’ tanks that had left for the Middle East in August, a second shipment of 100 such tanks had now quietly been dispatched for the same destination. Thus, in late October 1940, there were only some 250 ‘modern’ tanks in the UK to deal with this threat— until, that is, tank production over the subsequent few months began to address this deficit.

In truth though, as Jonathan Dimbleby states in his study of the Desert campaign of 1940 to 1942, t ‘Churchill regarded the protection of the Middle East as second only in importance – and a close second at that- to the survival of the United Kingdom’.⁷⁷⁵ The fact that the predicted Italian assault on Egypt (from within Libya) was indeed launched on 9 September 1940 is, at least, some vindication of the decision to deplete tank numbers and thus degrade the GHQ Reserve’s capability at such a vital time. However, according to Dimbleby’s account, both the 100 tanks that left England in August 1940 and the second shipment of 100 tanks that followed in October 1940, were forced undertake the three-month voyage around the Cape of Good Hope rather than risk going directly through the Mediterranean – ‘because the Axis had command of the skies’. This was despite Churchill’s strong assertion that the speedier route should be followed.⁷⁷⁶ Thus the first shipment did not arrive until November 1940. Its tanks were, however, still able to take part in Lieutenant-General Sir Richard O’Connor’s counter-offensive, which began on 8 December. Doubtless the newly arrived Mk II (Matilda) infantry tanks of 7 Royal Tank Regiment proved useful on the ground, but how vital their contribution was in the light of the subsequent Italian collapse in late 1940 would be worthy of further study, given the role they might have been required to play had England been invaded. Furthermore, the irony is that, following the mass surrender of ever more Italian forces during an advance

⁷⁷⁴ TNA, WO 199/569, Paper by General Sir Alan Brooke entitled; *Military Defence of the UK*, dated 27 November 1940.

⁷⁷⁵ Dimbleby, *Destiny in the Desert*, p. 3.

⁷⁷⁶ *Ibid.*, pp. 30-31.

into Libya that culminated in the fall of Benghazi, some 380 Italian tanks had been captured by 14 February 1941.⁷⁷⁷

With hindsight therefore, depleting the reserves of tanks in the UK in the summer of 1940 was arguably not a risk that needed to be taken and it is no wonder that Churchill was to note in *Their Finest Hour*, that the decision to pull these tanks out of the UK had worried him greatly at the time.⁷⁷⁸ That said, this was only one of many War Cabinet decisions to transfer much-needed equipment to Egypt from the summer of 1940 onwards. Indeed, such was his concern that, in May 1941, Dill wrote a long memo to Churchill, underlining his view of the risks Churchill was taking by sending more and more materiel to the Middle East, when the United Kingdom still remained vulnerable to invasion – in his view as soon as German armoured forces were released from the Balkan theatre. In Dill's opinion the country, even in early 1941, still had only about half the tanks it needed to repel an invasion, whilst the Royal Air Force would struggle to prevent landings and the Royal Navy would take around five to seven days to concentrate adequate naval forces in home waters. 'It is the United Kingdom... and not Egypt that is vital' he underlined.⁷⁷⁹ In summary then, the demands of Britain's imperial strategy would have proved a significant constraint on ability of the GHQ Reserve to execute the type of counter-attacks that would probably have been required had an invasion taken place.

⁷⁷⁷ Ibid., p. 44-50.

⁷⁷⁸ Churchill, *Their Finest Hour*, p. 373.

⁷⁷⁹ CAB 120/438, War Cabinet, Home Defence – Military Invasion – General File, Memo from Dill to Churchill, entitled: *The Relation of the Middle East to the Security of the United Kingdom*, dated 6 May 1941.

The manifestation of fighting doctrine on the ground?

The General Headquarters Reserve

Having explored what the fighting doctrine should have been and the broader constraints upon its execution, it is now important to examine the degree to which it was being adhered to within the GHQ Reserve in the summer of 1940.⁷⁸⁰ Of particular importance is to examine the role of the nation's scarce supply of 'modern' tanks within the GHQ Reserve, tanks that Brooke envisaged would have been in the vanguard of mobile counter-attacks.⁷⁸¹ It should be noted early on that attempting to examine how a military formation was or was not adhering to a fighting doctrine is complicated both by the passage of time and the relative paucity of archival sources. Had an invasion taken place (and been repelled), much would have subsequently been written by historians about how the GHQ Reserve's fighting doctrine played a role in achieving this. However, in the absence of actual combat in the fields of Kent and Sussex in the summer of 1940, it is hard to prove the degree to which a combined arms doctrine had been truly adopted by counter-attacking forces with the country's strategic reserve.

Nor is it easy to determine this by examining the larger scale exercises that the GHQ Reserve undertook that summer, at Brooke's insistence. For, as has been shown in some detail in Chapter Two's section on Training, the amount of what could truthfully be termed 'combined arms training' that took place was not huge. Some exercises were clearly aimed at getting armoured vehicles, infantry and artillery to wage a coordinated and aggressive war of movement, supported by aircraft. But they were, as Chapter Two shows, relatively few and far between and were small-scale indeed compared to the major combined-arms anti-invasion exercises that Brooke initiated in the spring and autumn of 1941 (Exercises Bumper and Bulldog).⁷⁸² Back in the summer of 1940, any combined arms training undertaken by the GHQ Reserve could only have increased its capability, but the degree of improvement that resulted is challenging to pin down. It was probably small and was certainly insufficient to prove that a combined arms doctrine had been comprehensively adopted across the GHQ Reserve, with all that that implies. In particular the instances of infantry and tanks training to counter-attack together appear to have been modest. Indeed, one of the few instances of this happening on a

⁷⁸⁰ Appendix I: The Order of Battle of XII Corps and the GHQ Reserve in September 1940.

⁷⁸¹ Appendix III: The Number of 'Modern' Tanks by mid-September 1940.

⁷⁸² For more information on Exercise Bulldog and Exercise Bumper in the spring and autumn of 1941, please see: TNA/WO 199/2457, Eastern Command, Exercise Bulldog, Instructions, 1941 and TNA/WO 199/2457, GHQ Home Forces, Exercise Bumper, 27 September to 3 October 1941.

meaningful basis was with the Canadian infantry division within VII Corps (based around Dorking). Thus, the war diaries of 1 Canadian Division, reveal that it practiced fighting alongside the infantry tanks of 1 Army Tank Brigade in the Surrey countryside for much of August 1940 – so much so that, the Mk II ‘Matilda’ infantry tanks needed significant extra maintenance.⁷⁸³ But such training alongside infantry tanks seems to have been the exception rather than the rule. Furthermore, this study has uncovered few incidents where infantry trained in close partnership with cruiser tanks – despite the state of ‘national emergency’ that might have over-ridden the normal view that such tanks were designed only to fight mobile engagements (such as flanking attacks) on their own.

That said, there are some examples of where formations with cruiser tanks tried to adapt how they used these armoured vehicles. Thus, in IV Corps (north of the Thames), its two infantry divisions were supplemented by 2 Armoured Division, with its single regiment (5 Royal Tank Regiment) of 50 cruiser tanks now based around Cambridge, together with a multitude of obsolete Vickers Mk VI light tanks. In one of IV Corps’ Operational Instructions in August, it is pointed out that the ‘strategic counter-attacks’ that General Sir Alan Brooke was demanding in the event of an invasion, would require IV Corps’ tanks to work in a different way than they had up to now with its infantry formations, i.e., 42 (East Lancashire) Division and 43 (Wessex) Division.⁷⁸⁴ Specifically, it emphasises that ‘Tanks should no longer be used to attack the enemy’s rear or flanks’, despite the fact that 2 Armoured Division’s cruiser tanks lacked the heavy armour required for attacking enemy positions ‘head on’ – as had been proved in France. Furthermore, there are other aspects within this Operational Instruction that demonstrate a degree of flexible thinking. For instance, it states that where IV Corps’ tanks were to play a ‘spear-heading’ role, it would be necessary to address urgently the ongoing communications problems between its armoured formations and supporting infantry. Also, the instruction states that such counter-attacks would require a more rapid deployment of armoured vehicles than was current practice, coupled with more, ‘boldness and ruthlessness on the part of junior leaders.’ Overall then, it has to be said that this particular Operational Instruction does not read like a ringing endorsement from IV Corps that it would be readily able to use its cruiser tanks to execute the combined arms mobile counter-attacks that Brook was demanding. And

⁷⁸³ TNA, WO 179/37, war diary of 1 Canadian Division, HQ, June to August 1940, minutes of Staff Conference held at the HQ of 1 Canadian Division, 13 August 1940.

⁷⁸⁴ WO 166/231, war diary of IV Corps, Intelligence, June 1940 - March 1941; IV Corps Operation Instruction, No.5., dated 21 August 1940, *Co-operation of Armoured and Infantry Formations in the Attack*, by Brigadier, General Staff, IV Corps.

the ability of its two infantry divisions to counter-attack alongside the modest assortment of tanks available to them in September 1940 was, as has already been noted, further constrained by a lack of road transport. Within 42 (East Lancashire) Division, for instance, the 1st Battalion, Border Regiment's 'mobile force' only comprised hired motor coaches plus a single 30 cwt lorry.⁷⁸⁵

The key point, though, is that much was still being debated in relation to armoured doctrine at the time, which complicated the progression towards mobile combined arms warfare. But these were desperate times when, as Peter Beale puts it, the priority was on defending the country rather than distilling the perfect armoured doctrine – and it was not until 1941 that the Army published its Army Training Instructions No.3. which went well beyond the Field Service Regulations and specifically covered the handling of an Armoured Division.⁷⁸⁶ Interestingly, the previous Army Training Instruction (No.2) which was issued in March 1941 and was focused upon how infantry should cooperate with tanks, still only addressed infantry fighting alongside infantry tanks rather than cruiser tanks or light tanks – despite the continuing relative shortage of infantry tanks.⁷⁸⁷ Crucially, the view still persisted that only the infantry tanks of the two Army tank brigades were viewed as being primarily designed for employment with formations of other arms. Given that back in September 1940 only just over half of the nation's 'modern' tanks were infantry tanks (as Appendix III makes clear), this implies that only some of the nation's formations of cruiser tanks would even have been attempting a combined arms approach in the event of an invasion. It is also relevant to note that the debates about how to use armoured fighting vehicles in the event of an invasion also came to the attention of Sir Auckland Geddes, the Commissioner for Civil Defence for the South East. From the Headquarters of XII Corps in Tunbridge Wells on 15 September 1940, he wrote about his fears about the GHQ Reserve's ability to counter-attack in the event of an invasion, stating that 'This new armoured warfare seems to have got them guessing.'⁷⁸⁸

From a doctrinal perspective, it is interesting that fighting doctrine was still being 'adapted' by other components of the GHQ Reserve in the summer of 1940. For example, within VII

⁷⁸⁵ WO 166/4153, war diary of 1st Battalion, Border Regiment, 125 Bde, 42 (East Lancashire) Division, July to December 1940, Operational Instruction No.3., 6 August 1940.

⁷⁸⁶ Peter Beale, *Death by Design: British Tank Development in WWII*, (Stroud: Sutton Publishing, 1998), p. 33.

⁷⁸⁷ TNA, WO 231/281, Army Training Instruction (No.2), (issued by The War Office), *The Employment of Army Tanks in Cooperation with Infantry*, March 1941.

⁷⁸⁸ CCA, Private Papers of Sir Auckland Geddes, File No: Gedd 7/2 1010.

Corps, based around the ‘Dorking gap’ in the Surrey Hills, an exercise took place in August 1940 involving 1 Army Tank Brigade and 1 Canadian Infantry Brigade. Having witnessed three troops of tanks advancing forward of an infantry company, with a further two troops of tanks behind it, the officer commanding 1 Canadian Infantry Brigade, Brigadier Smith, decided that co-operation had not been close enough. He thus ordered the exercise to be repeated but this time with the infantry out in front given that, in his opinion, infantry should lead tanks to the objective during an attack.⁷⁸⁹ This may have been entirely justified but the implication in the unit’s war diary is that this was his own subjective view of how infantry and tanks should work together.

Further debate about how best to use tank resources to counter-attack an invader can be seen in a memo from Lieutenant-General Andrew McNaughton (Commander-in-Chief of VII Corps), following a visit from Major-General Guy Williams (General Officer Commanding, Eastern Command), in which McNaughton explores ideas for how best to utilise both the cruiser tanks and the formations of light tanks within 1 Armoured Division, along with the Mk II (Matilda) infantry tanks of 1 Army Tank Brigade. McNaughton’s memo (from July 1940) advocates the use of the cruiser tanks and the light tanks (mainly Vickers Mk IV’s) in a ‘cavalry role’ against the rear and the flanks of an enemy incursion, while using so-called Independent Infantry Brigade Groups (of which VII Corps and XII Corps each had a small number), to ‘drive through the enemy from different directions’, supported by the infantry tanks of 1 Army Tank Brigade.⁷⁹⁰ Again, this might have been a perfectly reasonable notion but it amounts to his interpretation of how best to use these forces and it is important to underline that McNaughton had never commanded tank formations before - and nor had 1 Canadian Division previously fought with tanks. All this is important because the combination of 1 Canadian Infantry Division and 1 Army Tank Brigade was, by some margin, the best mobile counter-attacking force that Britain had in September 1940 – despite the combined lack of combat experience. Sadly, such combat experience within 1 Army Tank Brigade (based around East Grinstead) was further reduced when 7 Royal Tank Regiment went to Egypt in the summer of 1940. That left 4 Royal Tank Regiment as the only one of its three regiments that had used its

⁷⁸⁹ TNA, WO 179/118, war diary of the Hastings and Prince Edward Regiment, 1 Canadian Infantry Brigade, 4 August 1940.

⁷⁹⁰ WO 179/37, war diary of 1 Canadian Division, HQ, June to August 1940; memo following visit of the G.O.C Eastern Command to Advanced HQ, Canadian Force, 3 July 1940.

tanks in battle – and its experience during the Arras counterattack had been sobering to say the least.

It is important to note that the debate about how to make the best use of Britain's armoured forces did not end in 1940 – indeed it would be fair to conclude that it had barely begun, even if this observation extends well beyond the scope of this study. Brooke, for instance, noted in his diary that he attended an armoured exercise between 16 and 18 January 1941 organised by Major-General Martel (who had recently been made commander of the Royal Armoured Corps). This was attended by all armoured formation commanders and Brooke underlines that much work was done, 'in the building up of an Armoured Forces doctrine, which was still very shaky.'⁷⁹¹ In summary then, all of this underlines just how much work still needed to be done within the Army in order for tanks, infantry and other arms to fight together seamlessly and that a consensus had not been reached by the peak of the invasion crisis. Amidst this relative doctrinal 'confusion', for the GHQ Reserve to have conducted successful mobile combined arms counter-attacks spearheaded by its armoured forces against an invader in September 1940, would have been challenging – despite the fact that, as events in France had proved, tanks had the potential to be a 'battle-winning weapon'.

Something crucial to the execution of a combined arms doctrine against German forces would have been flexibility. In this regard, Lieutenant-General Andrew McNaughton would, most likely, have proved something of an impediment. Aspects of McNaughton's somewhat pedantic, exacting and 'highly-strung' demeanor have already been explored in Chapter One, but there was another issue relating to 'rules of engagement' that would (most likely) have impacted the execution of a mobile counter-attacking doctrine in the event of an invasion. Both he (and in fairness the Canadian government) were reluctant for any Canadian forces to operate outside his direct control, especially in the event of German landings. This issue was first raised by McNaughton in July 1940 during a meeting at the headquarters of the Home Forces - and it proved hard to resolve.⁷⁹² It reared its head again in early September, when McNaughton (with the agreement of Lieutenant-General Sir Andrew Thorne) considered recommending to Brooke that the entire 1 Canadian Division be moved down to Tentertan in Kent – as mentioned earlier.

⁷⁹¹ LHCMA, Alanbrooke: 5/2/16, *Notes on my Life, Volume IV, Home Forces 1940 to 1941*, dated 1954, p. 248-250.

⁷⁹² TNA, WO 179/37, war diary of 1 Canadian Division, HQ, June to August 1940, Memo of discussion at Home Forces HQ on 5 July 1940.

However, it appears that one reason this did not happen was because of a lack of agreement about who would command these forces once they were situated in Thorne's XII Corps Area. There was also debate as to whether 1 Canadian Division would fight as one entity or consent to have its constituent brigades allocated to different formations well beyond McNaughton's direct control.

In particular, McNaughton wanted clarity as to whether, when his GHQ Reserve forces entered the XII Corps area, they would fight a new battle (under the direction of HQ Home Forces) or come under the control of XII Corps – some of whose formations and command systems may have been overrun.⁷⁹³ This sounds like a valid question on his part, but this issue rumbled on throughout the autumn of 1940 despite Brooke's attempts to resolve it. In fairness, it was largely a political question and McNaughton was only following orders at the time but, according to David Fraser, Brooke found McNaughton's interpretation of whatever guidelines he had been given by his government to be, 'over-exact' and it is noteworthy that this issue was still unresolved during the major anti-invasion exercises that took place during 1941 and 1942.⁷⁹⁴ Indeed Brooke noted in his diary after one of these exercises, how unhelpful it was that McNaughton had objected strongly to the 'Canadian Corps' having briefly had one of its divisions attached to another corps during the exercise and that the 'constitution' governing the use of Dominion troops was just as onerous as the rules involved when fighting alongside the forces of allies.⁷⁹⁵ Given that VII Corp's 1 Canadian Division was the best equipped and (with the exception of 3 Division) probably the best trained of the GHQ Reserves infantry forces available during the peak of the invasion crisis, Mc Naughton's attitude further calls into question the degree to which an executable combined arms counter-attacking doctrine was genuinely in place.

Finally, it is hard to conclude that the GHQ Reserve had adopted a combined arms doctrine and all that that entailed, in the face of evidence that appears to show that some of the ordinary soldiers in its infantry formations had only a limited understanding that their units would even be in the vanguard of mobile counter-attacks against an invader. An analysis of the Imperial War Museum's Sound Archive, largely compiled in the early 1980s by oral historian Peter

⁷⁹³ TNA, WO 179/37, war diary of 1 Canadian Division, HQ, June to August 1940, Memo by General McNaughton, September 1940.

⁷⁹⁴ David Fraser, *Alanbrooke*, (London: Harper Collins, 1982), p. 161.

⁷⁹⁵ *War Diaries*, Alanbrooke, entry for 31 January 1940.

Hart, reveals two dozen testimonies from officers and other ranks who served in either 42 (East Lancashire) Division or 43 (Wessex) Division in September 1940 i.e., within IV Corps. Despite being given a ‘structured’ interview which included (in most cases) a direct question about whether they thought an invasion was likely (most answered ‘yes’), few of these men mention anything about potentially being involved in a counter-attacking role against a German invader in the late summer of 1940.⁷⁹⁶ This is odd, not least because of the considerable personal danger this would have involved. Inevitably, soldiers tend to recall being in action rather than waiting around for something to happen. Thus, many of the testimonies from 42 (East Lancashire) Division concentrate upon the division’s arduous retreat to Dunkirk and those from 43 (Wessex) Division tend to emphasise the bitter fighting they endured in Normandy in 1944. But few have anything to say about the vital mission they would be tasked with had the German Army invaded in 1940. Typical of the testimonies is that of Victor Burton, an NCO within the 1st Battalion, East Lancashire Regiment. He can recall, amongst other things, picking peas on his father’s farm on the day war broke out, then scraping the grease off his new rifle as his battalion re-formed after Dunkirk and finally, selling a Luger pistol in a pub in Yorkshire in July 1940, for six pounds. But of being on red-alert in the Thames Valley ready to counter-attack an invader alongside other forces throughout September 1940, he makes no mention.⁷⁹⁷ Even allowing for the fact that an NCO, like Victor Burton, would not have had the ‘full picture’ of what was going on in relation to his unit, this seems strange.

This sample of two dozen testimonies across the two divisions is small and it should also be remembered that 42 (East Lancashire) Division was only moved into the GHQ Reserve at the end of August 1940. But this analysis nevertheless raises a question mark about just how aware ordinary soldiers were, at least within IV Corps, about what being in the GHQ Reserve might have entailed in the event of an invasion – not least in terms of how they were to fight. This is additionally strange because aspects of doctrine are underlined in the war diary of 43 (Wessex) Division, which contains an Operational Instruction from July 1940 making it clear that its role was to deliver a decisive counter-stroke using ‘ruthless offensive action’ and that, ‘all ranks

⁷⁹⁶ IWM Sound Archive; 42 (East Lancashire) Division - Joe Octavious Cetre, Captain, No.30134; Frank Brodie, NCO, No. 18204; Lawrence Greggain, NCO, No. 19530; William Millard, NCO, No. 20737; Tom Neary, Private, No.18376; Frank Rogers, Private, No. 18737; Rubin Wharmby, Private, No. 18741; Jim Smith, Private, No. 18740; William Smith, Gunner, No. 27452; 43 (Wessex) Division - Thomas Peace, Lieutenant, No. 18048; Arthur McAlister, NCO, No. 14281; Arthur Morris, NCO, No. 17840; Raymond Haines, NCO, No. 23371; Douglas Old, NCO, No. 23146; Henry Willmott, NCO, No. 22666; Ronald Clack, NCO, No. 21287; Frank Quelch, NCO, No.22074; Norman Bryant, Private, No. 19594; George Vaughan, Private, No. 20780; William Avery, Private, No. 22341; Lyle Hannan, Private, No. 22908; Stanley Warburton, Private, No.22340.

⁷⁹⁷ IWM Sound Archive, No. 18204/1, Victor Burton, NCO, 1st Battalion, East Lancashire Regiment.

must be thoroughly imbued with the offensive spirit'.⁷⁹⁸ Although such a sensitive Operational Instruction would hardly have been shared with the rank and file of 43 (Wessex) Division, it is odd that its key themes do not appear to have filtered downwards and that the full implications of this mobile counter-attacking role do not appear to have 'hit home' at the level of the individual soldier - at least amongst this collection of testimonies. Indeed, one of the few of the sample who mention any potential mobile counter-attacking role in the summer of 1940, is Private Jim Eaves of the 4th Battalion, East Lancashire Regiment. In his testimony he complains that, although they were supposed to be a mobile force against 'the most professional army in the world', their hired Midland red buses could not go up hills if fully-laden with men.⁷⁹⁹ It is hard to prove after so much time that some of IV Corps' (territorial) soldiers lacked much commitment to the notion of risking their lives in the execution of combined arms counter-attacks, but this collection of testimonies implies that it may have been so.

The same lack of 'resonance' about being part of the GHQ Reserve and pursuing a 'new' fighting doctrine is also evident even within the ranks of the 'elite' 3 Division, whose forces were part of the GHQ's 'deeper reserves' located in the Frome/Bridgewater area in the west of England. Thus, Humphrey Bredin, a platoon commander within 3 Division in the summer of 1940, recalls in his testimony many details of the battle he and his men fought at Louvain and then recalls their time manning coastal defences at Brighton after returning from Dunkirk. But of being a vital component of the GHQ Reserve in September 1940, and of practicing to fight alongside the infantry tanks of 21 Army Tank Brigade, he mentions nothing.⁸⁰⁰ In summary then, by September 1940, the GHQ Reserve does not appear to have sufficiently absorbed and practiced mobile combined arms warfare for it to have executed enough of the large-scale 'audacious mobile counter-attacks' demanded by Brooke. Furthermore, with the exception of 42 (East Lancashire) Division, 1 Armoured Division, one single tank regiment of 1 Army Tank Brigade and 3 Division (from the 'deeper reserves'), the forces of the GHQ Reserve (and their commanders) had never before seen combat – let alone had to execute a relatively new and complex fighting doctrine in the face of an assault by the same highly professional and determined German forces which had proved such a potent enemy in France.

⁷⁹⁸ TNA, WO 166/508, war diary of 43 (Wessex) Division, General Staff, 1939-1940, Operational Instruction No.5., 1 July 1940, paragraphs 2, 3 and 4.

⁷⁹⁹ IWM Sound Archive, No.18739/3, Jim Eaves, Private, 4th Battalion, East Lancashire Regiment, 127 Brigade, 42 (East Lancashire) Division.

⁸⁰⁰ IWM Sound Archive, No. 12139, Humphrey Bredin, Lieutenant in 1940 (but rose to Major-General), 2nd Battalion, Royal Ulster Rifles, 9 Brigade, 3 Division.

XII Corps in Kent and Sussex

At one level, how fighting doctrine (at the tactical level of warfare involving divisions and below) manifested itself in Sussex and Kent is straightforward – it appears to have broadly followed the Army’s doctrine for defence (as noted earlier in Volume II of the Field Service Regulations). Thus, the defence plan for the XII Corps area that was developed by Lieutenant-General Sir Andrew Thorne, written in June 1940 before Brooke took over command of the Home Forces, talks about ‘A combination of mobile columns and static defence, by means of strong points and ‘stops’.⁸⁰¹ That said, such tactics are totally compatible with Brooke’s notion of ‘offensive-defence’ referred to earlier. All this is underlined by the war diary of 35 Infantry Brigade, stationed just behind Whitstable Bay in north Kent in late July 1940, which states that the defeat of the enemy would require, ‘energetic action on the part of mobile columns, together with resolute determination on the part of troops allotted to static defence.’⁸⁰² However, the actual state of the various local mobile counter-attacking forces across the two counties needs assessing as the invasion crisis grew to a peak. Furthermore, the degree to which ‘stop-lines’ were in fact de-prioritised (as Brooke had demanded) requires examination, as do the implications of the rapid growth of ‘all-round’ defensive positions across Kent and Sussex throughout August and September 1940.

In terms of local counter-attacking forces, there are many references to ‘mobile striking forces’ and ‘mobile columns’ within the war diaries of the formations and units within 1 (London) Division and 45 (West Country) Division in the summer of 1940. Although these units contained no tanks, considerable efforts were made between the Dunkirk evacuation and September to create mobile forces that could operate independently from the rest of a division if necessary – as Brooke (and Ironside and Kirke before him) had stipulated. Thus, within 1 (London) Brigade, (located just east of Canterbury), its three infantry battalions (the 8th Battalion and the 9th Battalion, Royal Fusiliers and the 1st Battalion, London Irish Rifles) were, by then, equipped with requisitioned civilian lorries, vans and coaches - along with a least one carrier platoon and a mobile anti-tank company.⁸⁰³ 2 London Brigade (to the north of Folkestone and Hythe) had also built up a ‘mobile striking force’, code-named ‘QUEENCOL’, and largely made up of hired civilian vehicles and some carriers. However, ‘QUEENCOL’,

⁸⁰¹ NAM, papers of General Sir Andrew Thorne, (3367 to 3494), Plan of Defence, June 1940, (3495).

⁸⁰² TNA, WO 166/949, war diary of 35 Infantry Brigade, 1 (London) Division, entry for 21 July 1940.

⁸⁰³ TNA, WO 166/1040, war diary of 1 London Brigade HQ, Home Defence Instructions No.70, dated 8 September 1940.

which largely comprised the 1st Battalion, Queen's Westminster Rifles, appears to have been considerably smaller than 1 London Brigade's force and thus its ability to counter-attack Wehrmacht formations would have (presumably) been much less. Furthermore, John Langstaff, a rifleman with the 1st Battalion, Rifle Brigade (within 2 London Brigade) describes the battalion's 'mobile platoon' in the September 1940 as consisting of a hired laundry van and some bicycles.⁸⁰⁴

A similar picture is revealed when investigating 45 (West Country) Division in Sussex. Indeed, according to the division's Home Defence Scheme for July 1940, each brigade within the 45 (West Country) Division only had enough transport for one battalion to be classified as 'mobile' as the invasion crisis loomed.⁸⁰⁵ Also, some of the formations within 45 Division that were defending major coastal towns appear to have had units that they thought of as a 'mobile striking forces', but which (in reality) stopped somewhat short of that description. For example, the 9th Battalion, Devonshire Regiment, which was based for a while in Shoreham during the summer of 1940 had, according to its Defence Scheme, three companies based in the town, with one further company (A Company) listed as being in reserve, in order to, 'counter-attack any threatened area.'⁸⁰⁶ However, its war diary also reveals (in Operational Order No.3) that only two platoons of A Company were, in fact, 'mobile'. In summary then, 1 (London) Division's actual 'mobile striking force' in September 1940 was not huge, and that of 45 (West Country) Division was even smaller. Furthermore, these 'striking forces' lacked scale, experience, firepower, or armoured vehicles (beyond carriers).

In addition to the so-called 'mobile striking forces', there were other formations often referred to in war diaries as 'local mobile reserves' in the XII Corps area. Thus, within 45 (West Country) Division in Sussex, 136 Brigade (in the Pevensy, Newhaven and Seaford areas) had what its war diary describes as a 'brigade mobile reserve' which, for instance, was involved in a brigade exercise on 7 August 1940 in which this force tried (but failed) to resist an attack on port of Newhaven by the 9th Battalion, Devonshire Regiment. Sadly however, the war diary makes little mention of what this force contained other than an unspecified number of

⁸⁰⁴ IWM, Sound Archive, No. 10382/3, John Longstaff, Rifleman, 1st Battalion, the Rifle Brigade, 2 London Brigade, 1 (London) Division.

⁸⁰⁵ TNA, WO 166/4216, war diary of the 5th Battalion, Duke of Cornwall's Light Infantry, 136 Brigade, 45 (West Country) Division, *45 Division Abridged Provisional Home Defence Scheme*, July 1940.

⁸⁰⁶ TNA, WO166/ 4203, war diary of the 9th Battalion, Devonshire Regiment, 136 Brigade, 45 (West Country) Division, *Shoreham Defence Scheme*, July 1940.

carriers.⁸⁰⁷ It thus does not appear to have been a significant mobile counter-attacking force. The war diary of 134 Brigade reveals that as early as 12 May 1940, one company per battalion was designated as a mobile force, with the emphasis upon protecting aerodromes.⁸⁰⁸ It should also be noted that during the summer of 1940 most battalions, certainly in the XII Corps area, had established so-called Tank Hunting Platoons. For instance, according to its war diary, the 6th Battalion, Devonshire Regiment had such a platoon by September 1940.⁸⁰⁹ However these can hardly be categorised as mobile forces, especially given the shortages of transport. Thus, the Tank Hunting Platoon of the 1st Queen's Westminster Rifles (within 2 London Brigade) in July 1940, consisted of twenty-seven bicycles and three light vans.⁸¹⁰ In summary then, the variously named 'mobile reserves', 'mobile columns' and 'mobile striking forces' within XII Corps in September 1940 did not amount to anything more than a 'modest' mobile force and its ability to counter-attack (and thus delay) newly-landed German forces appears limited in the view of this study.

As the crisis peaked, Brooke sent several units from the GHQ Reserve into the XII Corps Area to bolster defences. This collective force was labelled the 'XII Corps Reserve' and contained two independent infantry brigades, the five battalions that made up the (poorly equipped) so-called '2 New Zealand Division', twenty-three precious Mk II (Matilda) infantry tanks of 8 Royal Tank Regiment (based near Ashford) and fifty-two cruiser tanks of 5 Royal Tank Regiment (located at Ham Street). However, these formations did not fit together as one cohesive force and nor were they concentrated in one place. Indeed, the New Zealand forces had not previously trained with infantry tanks and so began practicing fighting with 8 Royal Tank Regiment immediately – while the latter also reconnoitered the best route to Dover in the event of an invasion.⁸¹¹ It should also be noted that the New Zealand Forces were particularly short of anti-tank guns (as noted in Chapter Two). In summary then, the 'XII Corps Reserve', despite containing tanks, was a modest force with an equally modest combined arms warfare capability and it is not obvious that it would have been able to make a significant impact upon a large and determined invading force along the coast of Kent and Sussex. Thus, looking across

⁸⁰⁷ TNA, WO 166/992, war diary of 136 Brigade Headquarters, entry for 7 August 1940.

⁸⁰⁸ TNA, WO 166/989, war diary of 134 Brigade (Headquarters), 45 (West Country) Division, May 1940.

⁸⁰⁹ TNA, WO 166/4200, war diary of 6th Battalion, Devonshire Regiment, 134 Brigade, 45 (West Country) Division, September 1940.

⁸¹⁰ TNA, WO 166/4510, war diary of 1st battalion, Queen's Westminster Rifles, 2 London Brigade, 1 (London) Division, entry for 11 July 1940.

⁸¹¹ TNA, WO 166/1408, war diary of 8 Royal Tank Regiment, Milforce Operational Instruction No. 4., dated 6 September 1940.

the local mobile formations in the XII Corps area as the threat of invasion peaked, their collective counter-attacking capability was, in the opinion of this study, small, as was their ability to execute combined arms warfare – no matter how tenaciously they might have fought to delay a German advance inland.

Turning to the linear defences in Kent and Sussex, it is first important to understand their extent by early August 1940 when Brooke signaled that they should be de-prioritised as a defensive tool. Essentially the southern reaches of London were protected at the time by Ironside's so-called 'GHQ Line', which followed the natural defensive line of the Surrey Hills. At Sevenoakes, a further 'GHQ Line' (the Hoo-Newhaven line) snaked south down across the High Weald, through Uckfield and on to the coast at Newhaven. These lines were strewn with pillboxes and anti-tank gun emplacements, together with anti-tank obstacles and were largely completed by July 1940. In addition to these, there were also two so-called corps 'stop-lines' in the XII Corps area. The first of these was in north Kent, running diagonally from Dover up through Canterbury and on to Whitstable, and was designed to prevent a breakout of German armour had landings taken place in the Margate or Ramsgate areas. The second corps 'stop-line' ran eastwards from Rye, roughly along the line of the River Rother to Uckfield, but was only partially completed when work on it was stopped, following Brooke's edict, in early August 1940.

In addition to all this, two so-called 'division stop-lines' had been built. One followed the Royal Military Canal (an obvious natural defensive line) and was aimed at preventing the German Army from 'breaking out' following landings on the highly-exposed beaches around Dungeness and Romney Marsh. The other 'division stop-line' formed a similar protective screen aimed at containing a landing in the equally vulnerable Pevensey to Hastings coastline. It is noteworthy that these two 'division stop-lines' were constructed with some foresight, covering as they did what would have been the very 'fulcrum' of Operation Sea Lion's proposed landings.⁸¹² The so-called Romney and Pevensey 'corridors', offering as they did relatively flat routes to London (thus avoiding either the South Downs, the densely-wooded High Weald or the Kent Downs to the east), were the obvious routes an invader would take in 1940, having decided to invade the south-east coast. The fact that Julius Caesar had landed at

⁸¹² Forczyk, *Operation Sea Lion*, map showing the four proposed Wehrmacht landing zones selected for a possible invasion in late September 1940, p. 255.

Romney Marsh and William the Conqueror had come ashore at Pevensey, presumably only added to the growing sense of inevitability within the XII Corps area as September 1940 dawned.⁸¹³ But the key point is that back in July 1940, before Brooke's elevation, this network of 'stop-lines' across the Kent and Sussex countryside featured in the defensive plans of many of the front-line formations. Thus, the war diary of 1 London Brigade for 15 July 1940, clearly states three priorities in the event of an invasion. Firstly, troops were to defend the beaches, then they were to counter-attack if the beaches were lost and failing that, they were tasked with occupying 14 miles of the (so-called) 'corps line' (from Gravanay to Bekesbourne).⁸¹⁴ On the ground then, before Brooke took over the Home Forces, 'stop-lines' appear to have been viewed within XII Corps as a perfectly valid 'last resort'.

It is not within the remit of this study to undertake an assessment of the validity of 'stop-lines' in 1940. Brooke's assessment that, for the country, there were simply too many miles of them by late July 1940 for them to be manned effectively, is doubtless correct. Also, his logic that once troops are sitting behind defensive lines they are harder to use as a counter-attacking force, was probably equally right. And Newbold, in his detailed 1996 study, (which built upon an assessment he made in 1980 of Britain's anti-invasion defences), concludes that the main so-called 'GHQ Line' (largely running down the spine of the UK) was a 'white elephant,' and that the lesser corps and divisional 'stop-lines', between the main line and the coast were in a similar category.⁸¹⁵ That conclusion may be valid for many parts of the country but down in the XII Corps area in the south-east of England as the summer of 1940 progressed this was not the consensus view, either of the main GHQ Line or of the further divisional and corps 'stop-lines' mentioned earlier. Lieutenant-General Sir Andrew Thorne, for example, concerned that his forces lacked enough mobile anti-tank guns or armoured vehicles was, according to the historian Colin Alexander, worried that he would not be able to prevent an enemy force advancing up the 'Romney Corridor'. He thus felt that XII Corps might need to retreat to the Hoo to Newhaven section of the GHQ Line until the GHQ Reserve arrived.⁸¹⁶ Crucially then, well after Brooke took over the running of the Home Forces, 'stop-lines' appear to have still been a key component of XII Corps' local tactical thinking.

⁸¹³ TNA, WO 166/539, war diary of HQ Royal Artillery, 45th (West Country) Division, entry for 25 July 1940.

⁸¹⁴ TNA, WO 166/1040, war diary of 1 London Brigade HQ, June to December 1940, entry for 15 July 1940.

⁸¹⁵ Newbold, 'British Planning and Preparations to Resist Invasion on Land', p. 251.

⁸¹⁶ Colin Alexander, *Ironsides' Line*, (London: Historic Military Press, 1999), p. 66.

Thus, at the end of July 1940, a Brigadier Medley from XII Corps gave a lecture to Royal Artillery officers within 45 (West Country) Division on Tank Warfare, during which much mention was made of the importance of the various ‘stop-lines’ in Sussex. It is hard to see that such thinking could simply have been reversed just a week later when Brooke made his first pronouncement about the need to dispense with ‘linear defences’. And in September, the 1st Battalion, Queen’s Westminster Rifles, in north Kent, undertook a battalion exercise that involved, ‘Taking up positions on the Corps Line’.⁸¹⁷ Furthermore, the war diary of 1 London Brigade on 8 September, states in Operation Instruction No.5., that defending ‘localities on the Corp Lines’ was a key part of its defence plan and that these would be ‘held to the last man’. Indeed, it also should be noted that the entire focus of this Brigade Operation Instruction was upon defending the Canterbury area, not upon counter-attacking.⁸¹⁸ The war diary of 2 London Brigade is also littered with references to ‘corps lines’. Its commanding officer even undertook a two-day reconnaissance of the main ‘corps line’ in Kent starting on 23 August and a month later the brigade took part in an exercise to occupy the southern section of this line.⁸¹⁹ Thus, if ‘stop-lines’ were seen as irrelevant by Brooke, they appear to have been viewed as a credible tool for delaying an invader when all else had failed by many within XII Corps.

Finally, during a presentation at the Staff College at Camberley in early September 1940 about how the German Army might invade Great Britain, the role of the ‘GHQ Line’ was emphasised as being the key anti-tank obstacle.⁸²⁰ Indeed anyone driving today around the M25 to the south of London cannot fail to notice the impressive scale of the Surrey Hills (at least by the standards of southern England) which, as Brooke himself pointed out, were the city’s only natural defence once an enemy started to move inland.⁸²¹ It is therefore hard to conclude that the ‘GHQ-Line’ (running along its southern escarpment) in, say, the vicinity of Dorking, Redhill and Sevenoakes, would not have been important in delaying an invader’s force of armoured fighting vehicles – assuming it was properly manned at the time. And if

⁸¹⁷ TNA, WO 166/4510, war diary of the 1st Battalion, Queen’s Westminster Rifles, 2 London Bde, 1 (London) Division, entry for 22 September 1940.

⁸¹⁸ TNA, WO 166/1040, war diary for 1st London Brigade HQ, June to December 1940, Operation Instruction No.5., dated 8 September 1940.

⁸¹⁹ TNA, WO 166/1042, war diary of 2 London Infantry Brigade, Headquarters, (August 1939 to November 1940), entries for 23 August and 22 September.

⁸²⁰ TNA, WO 199/567, notes prepared for Staff College, September 1940 to April 1942, document entitled; ‘*A Note on Probable German Action Against Great Britain*’, dated 5 September 1940.

⁸²¹ BBC programme entitled, ‘The Alanbrooke Diaries’, interview of Lord Alanbrooke, 1957, www.youtube.com, posted 30 October 2014, [accessed 28 January 2021]

‘stop-lines’ were of so little practical value, why were more of them being planned in the Autumn of 1940 within the XII Corps area?

For it transpires that a further ‘stop-line’ was being formulated that would have run from Canterbury in a south-westerly direction down to Hawkhurst (deep in the High Weald), thus putting a barrier right across the ‘Romney Corridor’ (between Tenterten and Ashford). It was referred to in a letter in late September 1940 from Lieutenant-General Sir William Bartholomew (of ‘The Bartholomew Report’ fame) who by now was Chief of the Civil Defence Operational Staff.⁸²² Writing to Sir Will Spens at the Ministry of Home Security, he argued that if XII Corps intended to hold this planned line at all costs, local civilians might need to be evacuated.⁸²³ It appears that this new ‘stop-line’ was finally constructed from March 1941 onwards and if Brooke was aware of its presence, he did not mention it in his diaries.⁸²⁴ Finally, the (already mentioned) ‘division stop-line’ guarding the exits from the Pevensey beaches was extended in 1941 along through Barcombe Mills in order to protect the gap in the South Downs at Lewes. Indeed, the line eventually continued all the way to Pulborough (north of Arundel). There was also a new ‘stop-line’ (of sorts) in Kent that was formed in September 1940, covering the north to south route from Charing to Ashford and on down to Ham St, on the eastern side of the ‘Romney corridor’. It was designed to contain a ‘break-out’ from either Folkstone and Dover and in September was manned (remarkably, given their supposed counter-attacking role) by the New Zealand forces and the 8 Royal Tank Regiment. Thus, whereas ‘linear defence’ might now have been seen by Brooke as the wrong tactic level within the Headquarters of the Home Forces in London in September 1940, things looked somewhat different down at the ‘coal face’ in Kent and Sussex. Interestingly, according to the historian Nigel Hamilton, when Lieutenant-General Sir Bernard Montgomery took over XII Corps in April 1941 he was most surprised to discover that linear defences were still being constructed in the corps area.⁸²⁵ In summary then, despite Brooke’s emphatic edict, ‘stop-lines’ appear to have still be seen as relevant by local formations in Kent and Sussex. This is important because they would (most likely) have been at least partially manned by front-line troops if an invader

⁸²² Newbold, ‘British Planning and Preparations to Resist Invasion on Land’, p. 312.

⁸²³ TNA, WO 199/544, Keeps or Fortified Villages, (Nodal Points or Anti-Tank Islands), September 1940 to October 1942, Letter to Sir Will Spens, Ministry of Home Security, 28 September 1940.

⁸²⁴ Victor Smith and Peter Seary, *Kent’s Twentieth Century Military and Civil Defences, Part 3 – Canterbury*, Archologia Cantiana, Vol.132, 2012, www.kentarcheology.org.uk, [accessed 11/8/2020].

⁸²⁵ Nigel Hamilton, *Monty, The Making of a General 1887-1942*, (London: Book Club Associates, 1981), p. 478.

had not been stopped on the beaches – troops that by definition could not also have been counter-attacking.

But, as mentioned earlier, ‘stop lines’ were only the beginning of the static local defences that were in place as the invasion crisis reached its peak, despite Brooke’s efforts. Thus, the minutes of Eastern Command’s Conference on Defence Policy on 10 August 1940, (chaired by General Sir Guy Williams and attended by Lieutenant-General Sir Andrew Thorne) indicate that, following Brooke’s recent edict, ‘stop-lines’ were ‘no longer of primary importance’.⁸²⁶ However, at the same meeting it was also noted that the building of them would continue, ‘where a line is part of the system of the protection of Nodal Points’. Such so-called ‘nodal points’ were specific places along ‘stop-lines’, where key roads etc. met and thus where defending them was particularly important – preferably by fortifying the position to allow all-round defence. Thus, during the same meeting further wiring was authorised to be done at ‘nodal points’ on southern parts of the ‘GHQ Line’ and it was agreed that anti-tank ditches on the two ‘corps lines’ should continue to be revetted around such ‘nodal points’. Also, although it was stipulated that construction at so-called ‘permanent nodal points’ would, from now on, need the permission of Eastern Command HQ, any blockhouses that were authorised would need walls that were 15 inches thick and anti-tank gun emplacements were to be made of concrete. Thus, even where linear defence was being down-graded it was merely being replaced with other forms of static defence which would need manning by credible troops if an invader moved inland.

In truth, all-round defended ‘nodal points’ were now seen down in the south-east as the most effective tool for delaying an enemy’s advance on London. Many roads in deepest Kent and Sussex were often not only narrower and more enclosed than in northern France but also converged more frequently on a single town or village. Thus, turning these into localities fortified for all-round defence against armoured vehicles was an obvious course of action – at least according to an insightful note on the development of ‘nodal points’ written by a brigade major from XII Corps.⁸²⁷ Such fortifications were being built at pace across both counties (and beyond) in the summer of 1940. Indeed, according to the historian Colin Alexander, even

⁸²⁶ TNA, WO 166/72, war diary of General Staff Branch, Eastern Command, 1940, Minutes of Conference on Defence Policy, dated 10 August 1940.

⁸²⁷ WO 199/544, Keeps or Fortified Villages, (Nodal Points or anti-tank Islands), September 1940 to October 1942, Report on ‘nodal points’ by an unnamed brigade major, 12 Corps, dated 1 January 1941.

before Brooke took over in late July 1940, defended ‘nodal points’ had been planned for the entire length of the Newhaven-Hoo GHQ-Line – i.e., during Ironside’s tenure.⁸²⁸ And as early as 5 July 1940, at a meeting at Home Forces HQ, Lieutenant-General Sir Guy Williams of Eastern Command informed Major-General Andrew McNaughton of VII Corps that ‘strong points’ were now being developed throughout Eastern Command where ‘stop-lines’ crossed road junctions and rivers.⁸²⁹ The key point here is that, in the event of an invasion in September 1940, most of these new ‘nodal points’ across Kent and Sussex would have needed defending, just as the (still functioning) ‘stop-lines’ would have been (in many cases) manned at some point if troops had to fall back after unsuccessful actions nearer the coast. As will be shown, all this would have meant tying down a proportion of the front-line troops that might otherwise have been freer to counter-attack, given the limitations of the Local Defence Volunteers and so-called ‘static defence’ troops at this early stage of the war.

Crucially though, what all this also appears to indicate is that, given the relatively low capability to counter-attack coupled with the shortage of mobile forces, static defence (be it linear or all-round) would have been to the fore ‘on the ground’ in the XII Corps area had landings occurred. It is interesting that Brooke’s diary throughout the second half of 1940, during which time he (and Churchill) visited Army units in Kent and Sussex numerous times, makes no mention of ‘nodal points’ or of ‘all-round defence’. Indeed, this study has unearthed only one formal mention by him of ‘all-round’ defence’, which occurred during his first Commander-in-Chief Home Forces Conferences in August 1940 (as already noted).⁸³⁰ Nor did Brooke expand upon he had meant by ‘all-round defence’ during the August meeting in the report he submitted on 10 August, entitled *Policy for Home Defence*.⁸³¹ Nor for that matter is all-round defence referred to in any detail in Brooke’s subsequent defence plan for 1941.⁸³² Thus, quite what Brooke thought of the rapid spread of ‘nodal points’ not just in the South-East but across counties such as Hampshire, Dorset, Suffolk and Norfolk (to name but five) in

⁸²⁸ Alexander, *Ironside’s Line*, p. 66.

⁸²⁹ TNA, WO 179/37, war diary of 1 Canadian Division, HQ, June to August 1940, Memo of discussion at Home Forces HQ on 5 July 1940.

⁸³⁰ The War Offices files consulted in the TNA on this point are: WO166/1, Home Forces GHQ, September 1939 to December 1940, WO 199/3056, C-in-C Home Forces, Conference Minutes (December 1940), and, WO 199/1648, C-in-C Home Forces Conference: points raised by Corps and Divisional Commanders, November – December 1940.

⁸³¹ WO166/1, Home Forces GHQ, September 1939 to December 1940, Report from Lieutenant-General Sir Alan Brooke to The Under-Secretary of State, *Policy for Home Defence* – dated 10 August 1940.

⁸³² WO 199/569, Military Defence of the UK, (November 1940), Brooke’s Plan for Home Defence for 1941, 28 November 1940.

the summer of 1940 is hard to know. But he certainly knew all about them, not least because he chaired the Home Defence Executive Committee - one purpose of which was to bring together Regional Commissioners, plus the Ministries of Health, Transport and Home Security and the Home Forces, to plan for how the larger of the all-round defences (and the civilians within them who had been told to 'stay put') would be provisioned and protected in the event of an invasion.⁸³³ The importance of this issue can also be gauged by another memo from Lieutenant-General Sir Guy Williams in September 1940, discussing how the large number of 'nodal points' that had by then been completed in the XII Corps Area would now need provisioning.⁸³⁴

By late 1940, 'nodal points' in Kent and Sussex (and indeed throughout the adjacent Southern Command) were so numerous that they were now categorised from 'A' down to 'D', with 'A' being a whole town (fortified for all-round defence) rather than simply a road junction on a 'stop-line'. Indeed, at a meeting of what appears to have been a sub-committee of the Home Defence Executive Committee in December 1940, attended by Sir Auckland Geddes, the Regional Commissioner for No.12 (South Eastern) Region, together with officials from the Ministries of Health and Food, together with the Fire Brigade and a Brigadier Douglas Hogg from XII Corps HQ, it was noted that there were now 52 'nodal points' in the XII Corps Area. Furthermore, each needed to be provisioned to survive for one week in the event of an invasion in terms of water, food, fire-fighting, casualty treatment, policing and air raid wardens.⁸³⁵ Defending all of these had thus developed into a substantial military task.

This acceleration in all-round defences in the Autumn of 1940 was partly catalysed by worried local civilian authorities, with the increasing requests for new 'nodal points' being channeled from the Home Defence Committee to the Ministry of Home Security.⁸³⁶ They were thus not proactively driven or constructed by the military formations based locally -unlike the (now supposedly de-emphasised) 'stop-lines'. Regional Commissioners also played a key role in this expansion. Thus, in September, Sir Auckland Geddes made it clear to Lieutenant-

⁸³³ For further information on the Home Defence Executive Committee, please see: TNA, CAB 21/1106, Home Defence Executive Committee, 1940 to 1944.

⁸³⁴ TNA, WO 199/544, Keeps or Fortified Villages, (Nodal Points or anti-tank Islands), September 1940 to October 1942, Memo from Lieutenant-General Sir Guy Williams G. O. C.-in-C. Eastern Command, to G.O.C 12 Corps, 25 September 1940.

⁸³⁵ TNA, MH 79/483, Civil Defence: Nodal 'Tank Islands' and Other Defence Points.

⁸³⁶ WO 199/544, Keeps or Fortified Villages, (Nodal Points or anti-tank Islands), September 1940 to October 1942, Note from an un-named Lieutenant-General at GHQ Home Forces to HQ Eastern Command, 7 October 1940.

General Sir Andrew Thorne in writing that, in his view, heavily-defended ‘nodal points’ were a much better option than ‘stop-lines’ in the XII Corps area, to delay the advance of enemy armour.⁸³⁷ He also subsequently wrote to Lieutenant-General Sir Bernard Paget, Brooke’s Chief of Staff within GHQ Home Forces, demanding that ‘nodal point’ defences should be, ‘expanded and accelerated’.⁸³⁸ It is worth noting that as 1940 turned into 1941 and the equipment and manpower situation began to slowly improve, fortified ‘nodal points’ became an ever more central component of invasion defences in the south and south-east. Indeed, Colin Alexander claims that, by early 1941, the GHQ of the Home Forces was issuing orders to Army commands to the effect that the defensive system of nodal points, anti-tank islands and centres of resistance now represented the future policy for inland defence.⁸³⁹ What Brooke really thought of all this back in September 1940 is hard to determine given his almost total silence about inland nodal points. However, it may well have been that the demands of local civilian authorities and frightened residents across Kent and Sussex, combined with the defence plans that formations within XII Corps already had in place, meant that, in reality, he and his Home Forces staff had scant room for manoeuvre, despite his stated reticence about static defence. In any event, according to a military map of Sussex in April 1941, compiled by 38 (Welsh) Division (who by then guarded much of the coastline), the various ‘stop-lines’ (already mentioned) were still very much in existence and some forty-five ‘nodal points’ of different sizes are marked. And all this in just one county.⁸⁴⁰

Indeed, Sir Auckland Geddes even lobbied (a seemingly reluctant) Brooke in person on 13 September, to extract his agreement that more of these so-called ‘keeps’ would now be constructed within the south-east region, specifically, Canterbury, Ashford, Tonbridge and three others in Kent alone.⁸⁴¹ And these inland ‘fortresses’ came on top of the coastal towns in Kent and Sussex that had already been fortified by either 1 (London) Division or 45 (West Country) division. For instance, the important port of Newhaven had been turned into a ‘fortified town’ by August 1940, with both an outer defensive ring plus an inner one. Not surprisingly, the Defence Scheme for the town drawn up by the 5th Battalion, Duke of

⁸³⁷ CCA, Private Papers of Sir Auckland Geddes, Gedd 7/2 1010, Letter to Lieutenant-General Sir Andrew Thorne (G.O.C. XII Corps), dated 15 September 1940.

⁸³⁸ TNA, WO 199/544, Keeps or Fortified villages, (Nodal Points or Anti-Tank Islands), September 1940 to October 1942, Letter to Lieutenant-General Paget, Chief of Staff, GHQ Home Forces, dated 3 October 1940.

⁸³⁹ Alexander, *Ironsides Line*, pp. 30-34.

⁸⁴⁰ TNA, WO 166/482, war diary of 38 (Welsh) Division, General Staff, September 1939 to December 1941, Map of Sussex Defences, dated April 1941.

⁸⁴¹ TNA, WO 199/544 Keeps or Fortified Villages, (Nodal Points or Anti-Tank Islands), September 1940 to October 1942.

Cornwall's Light Infantry states that it was 'to defend Newhaven as a fortress'.⁸⁴² And down on the exposed Dungeness peninsula near the beaches at Romney, the town of Lydd had also, by 7 September, been turned into a fortress involving an outer ring, a keep and even a 'tank destruction centre' in its central square. The 5th Battalion, Somerset Regiment, tasked with defending both Lydd and nearby Brookland (which had been similarly fortified) was equipped with three days of rations and were, according to Battalion Operational Order No.13., expected to hold both 'strong points' to the last man.⁸⁴³ In short then, on the basis of Newhaven and Lydd, defending large, Category A 'nodal-points' (whether they were by the sea or inland), would have required at least some properly equipped and properly trained soldiers.

Yet it appears that many of the inland 'nodal points' controlling key roads and by now fortified with anti-tank defensive rings were, in theory, to have been defended by either members of the Local Defence Volunteers, or by so-called 'rear area' or 'static' troops. There is also some evidence that 'non-fighting' (but trained) troops from the front-line formations in Kent and Sussex, e.g., 'field ambulance units, Royal Engineers and field companies' would have also been used – at least according to the same note on 'nodal points' by the brigade major from XII Corps referred to earlier.⁸⁴⁴ But how realistic was all this in September 1940? Starting with the so-called 'non-fighting' components of the two infantry divisions, one could imagine that these would indeed have been useful when the time came to fall back to major 'nodal point' defences. It should also be noted that many elements of the Royal Artillery from the two front-line divisions would have already been manning guns set up in some major 'nodal points'. For instance, along the Hoo-Newhaven line the keep of the Norman Castle at Tonbridge boasted a six-pounder gun, as did the fortifications at Canon Loane Bridge in Maidstone - according to Colin Alexander.⁸⁴⁵

Turning to so-called 'rear area' or 'static' troops, the situation is more opaque largely because so little investigation appears to have been done on them in the historiography to date. Essentially these were units allocated to the so-called Area's and Sub-Area's that had by now been created across Kent and Sussex – and indeed well beyond those counties. Crucially

⁸⁴² TNA, WO 166/4216, war diary of the 5th Battalion, The Duke of Cornwall's Light Infantry, 136th Brigade, 45 (West Country) Division, document entitled; *Defence Scheme, Newhaven Subsector*, dated 21 August 1940.

⁸⁴³ TNA WO 166/4656, war diary of 5th Battalion, Somerset Light Infantry, 135 Brigade, 45 (West Country) Division, XII Corps, Operational Order No.13., dated 7 September 1940.

⁸⁴⁴ WO 199/544, Keeps or Fortified Villages, (Nodal Points or anti-tank Islands), September 1940 to October 1942, Report on 'nodal points' by an unnamed Brigade Major, 12 Corps, dated 1 January 1941.

⁸⁴⁵ Alexander, *Ironside's Line*, p. 74.

however, these forces appear (in September 1940), to have been modest in number, relatively untrained and somewhat spread out. An examination of three such battalions within the Home Counties Sub-Area at Sevenoaks reveals even in August 1940 a few of them were indeed acting as garrisons for ‘nodal points’ and defended towns, but the majority appear to have been guarding aerodromes such as Hastings and Shoreham, patrolling wireless stations or, in the case of the 6th Battalion, The Dorsetshire Regiment, reinforcing beach defences or guarding oil tanks.⁸⁴⁶ Furthermore their war diaries reveal no training exercises and no training with the front-line formations across the two counties. These men were then a long way from being ready to fight the Wehrmacht and would in any event have been very occupied defending aerodromes that would have been a key target to occupy in the event of an invasion. Furthermore, although in 1941 these (now enlarged) ‘static’ formations were given a formal role (alongside the Local Defence Volunteers) garrisoning major ‘nodal points’ and anti-tank islands, this was not their remit in September 1940.⁸⁴⁷

Nor, in the opinion of this study, did the various formations of Local Defence Volunteers in Kent and Sussex (often under the command of Sub-Area commanders) have enough of the capability or indeed the appetite needed to defend key ‘nodal points’ against a German onslaught as the crisis peaked. That is not to say that the Local Defence Volunteers in the late summer of 1940 were not committed to doing all that they could. There is plenty of evidence, for example, of their units not only conducting exercises with XII Corps but also helping to defend the beaches that were viewed as being most in peril. Thus, for example, there were agreed plans for Local Defence Volunteer units from ‘G’ Battalion in Sussex (including platoons from Willington, Eastdene and Stonecross) to ‘thicken up the beach defences’ in Eastbourne and Pevensey, behind the forward beach positions held by the 9th Battalion of the Devonshire Regiment.⁸⁴⁸ But there is also evidence that many of Local Defence Volunteers in Surrey, Kent and Sussex lacked sufficient training and weaponry to be put in a ‘front-line’ role. Thus, for example, the 850 men of the 4th (Guildford) Battalion in Surrey, who might have been expected to man a section of the ‘GHQ Line’ along the Surrey Hills in the event of an invasion, only had rifles for half their troops and about 20 rounds per weapon, at the end of

⁸⁴⁶ Units investigated from Sub-Area (Sevenoaks) for June to September 1940: TNA, WO 166/4267, 50th Battalion, East Surrey Regiment, TNA, WO 166/4210, 6th (Home Defence) Battalion, Dorsetshire Regiment and TNA, WO 166/4605, 70th Battalion, Royal Sussex Regiment.

⁸⁴⁷ Alexander, *Ironside’s Line*, pp. 31 and 34.

⁸⁴⁸ TNA, WO 166/4203, war diary of 9th Battalion, Devonshire Regiment, 136 Brigade, 45 (West Country) Division, XII Corps, June to December 1940, Operational Order No.6., August 1940.

July 1940.⁸⁴⁹ And up around Royston in Hertfordshire in August, Private George Vaughan of the 5th Battalion, Hampshire Regiment, found himself tasked with giving weapons training at night to Local Defence Volunteers. He describes them as being, ‘very Dad’s Army’, equipped as they were with just pickaxe handles. ‘They wouldn’t have been able to do much in the event of an invasion’, he concludes.⁸⁵⁰

Not surprisingly then, some units of Local Defence Volunteers, especially in Kent and Sussex, were not enthusiastic about manning ‘stop-lines’ or other static defences after an invader had landed. Thus, in mid-August, the Commander, Royal Artillery of 45 (West Country) Division, held a conference with Local Defence Volunteer battalion commanders in the ‘E Sub-Area’ of East Sussex (which he also commanded). At this conference the Local Defence Volunteer commanders, ‘didn’t react favourably’, when asked to man the ‘GHQ Line’ because they viewed the manning of such defences as the job of soldiers.⁸⁵¹ And a similar picture emerges in West Sussex from the discussions that VII Corps had in August 1940 with a Colonel Pike, the Local Defence Volunteer commander. At this meeting, VII Corps requested that, if they were indeed to move south to cover the ‘Arundle gap’ in the South Downs (as was being debated at the time), this move would require units from the Local Defence Volunteers to man many so-called ‘strategic points’ that controlled key road junctions. In response, Colonel Pike made it clear that few of his 12,000 or so able-bodied men had received any training to fight and that only 40% of them had rifles – although 20% did have shot guns. In any event, he was clear that their primary task was, ‘To stay locally based and to hunt down parachutists’.⁸⁵²

The role of the Local Defence Volunteers was re-visited during a Corps Commanders Conference at XII Corps HQ, in September 1940, when Lieutenant-General Sir Andrew Thorne himself proposed that they should now start garrisoning ‘stop-line’ and so-called ‘grid-lines’ – something that provoked a negative reaction. Having consulted with the Local Defence Volunteer commanders in his ‘Home Counties Area’, a Brigadier Davenport was able to go

⁸⁴⁹ Newbold, ‘British Planning and Preparations to Resist Invasion on Land’, p. 255, [taken from *A History of the Guildford Home Guard*, 1945].

⁸⁵⁰ IWM. Sound Archive, No. 20780/1, George Vaughan, Private, 5th Battalion, Hampshire Regiment, 130 Brigade, 45 (West Country) Division.

⁸⁵¹ TNA, WO 166/539, war diary for 45 (West Country) Division (HQ Royal Artillery), entry for 13 August 1940.

⁸⁵² TNA, WO 179/11, war diary of HQ Canadian Corps, General Staff, July to December 1940, Minutes of meeting on 6 August 1940, between Lieutenant-General McNaughton, G.O.C. VII Corps and Colonel Pike, Commanding Home Guard County of West Sussex.

back to Thorne with some more clarity about their attitude. Key amongst his findings were that; (1) garrisoning ‘stop-lines’ and ‘grid-lines’ was difficult given that many Local Defence Volunteers had jobs that took them to London each day, (2) that battalion commanders believed a large percentage would (as volunteers) resign if they were asked to man ‘stop-lines’ etc, and (3) that most units still felt too under-equipped and under-trained to ‘put up protracted resistance against a well-armed and determined enemy’.⁸⁵³ Furthermore, it is evident from 45 (West Country) Division’s Defence Scheme for September 1940 that, whereas units of Local Defence Volunteers might well help garrison a ‘fortress town’, they would merely ‘guide troops to ‘stop-lines’ or search for parachutists in the event of an actual invasion.’⁸⁵⁴

Even by May 1941 some Home Guard formations would have struggled to defend a major ‘nodal point’ against German forces – at least based on a three-day Civil Defence Exercise that took place in the market town of Stafford (north of Birmingham). This was aimed at practicing how civil authorities and military forces would work together to protect a key ‘nodal point’ and the civilians within it. The exercise’s scenario was that that southern England had been invaded a few days previously, that part of the country was now in enemy hands (but with that enemy now pushing north) and that parachutists had reported to have landed near Stafford. However, the ‘lessons learnt’ from the exercise reveal that the performance of what was by now called the ‘Home Guard’ had been underwhelming. Its 800 strong force had, it seems, made a number of elementary tactical mistakes which had meant it was quickly overwhelmed by the troops from Western Command that had played the role of the German Army.⁸⁵⁵

It is hard to extrapolate too much from such an exercise but, at the very least, it is noteworthy that this took place some eight months after (what turned out to be) peak of the invasion crisis. Back in September 1940, the Local Defense Volunteers might have been able to muster 800 men to defend a major inland ‘nodal-point’ in Kent or Sussex, but many of them would have lacked rifles or ammunition, not to mention all-important uniforms that would have prevented them being shot out of hand as partisans had they been taken prisoner. Furthermore, it is

⁸⁵³ TNA, WO 166/1214, war diary of Home Counties Area, 1939-1940 (One of XII Corps’s five sub-sectors), paper entitled; *Home Guard* (12 C/OPS/13/HCA), by Brigadier J. Davenport, Commanding Home Counties Area, dated 11 October 1940.

⁸⁵⁴ TNA, WO 166/536, war diary of 45 (West Country) Division HQ, August 1940 – October 1940, Document entitled; *45 Division Defence Scheme*, 27 September 1940.

⁸⁵⁵ TNA, WO 199/545, Co-operation with Civil Authorities in Nodal Points’ May 1941 to Feb 1942, Report on Stafford Civil Defence Exercise on Sunday 4 May 1941, by Major C. Spong.

noteworthy that the Army took the decision in September 1940 not to provide the Local Defence Volunteers with further logistical support or ‘normal military maintenance’ (i.e., transport, equipment, ammunition, or stores) in the event of an actual invasion.⁸⁵⁶ Also, a note written by the Lieutenant-General commanding VIII Corps, to HQ Southern Command, in December 1940 makes it clear that, in his opinion, the Home Guard was simply not up to the task of guarding and defending beaches.⁸⁵⁷ Thus, contrary to the long-held perception of many in Britain that the Home Guard would have played a critical role in repelling an invasion in the summer of 1940, the plain truth is that the Local Defence Volunteers simply lacked the capability to be of more than limited help. Furthermore, the notion that major ‘nodal points’ in September 1940 would have been defended by so-called ‘static’ troops seems unrealistic.

Yet another garrisoning issue was caused by one further addition to the anti-invasion preparations down in the XII Corps area. This was the so-called ‘grid system’ which had emerged as an additional static defensive tactic by August 1940. It was designed to delay even further the advance of enemy armoured fighting vehicles inland by establishing so-called ‘fences’. These supposedly linked (and thus augmented) other static defences such as the various categories of ‘stop-lines’, ‘nodal points’, ‘fortified towns’ and other defended localities throughout Kent and Sussex. The initial idea was that some of the ‘fences’ within this ‘grid system’ would be manned by Local Defence Volunteers, with others being the responsibility of troops. The full extent of this ‘grid system’ in the south-east is laid out in a paper in August from XII Corps to each of its five Corps Sub-Areas, in which it is made clear that, following reconnaissance, ‘A number of Fences have been selected to augment the GHQ, corps and divisional ‘stop-lines’ as part of a Grid’.⁸⁵⁸ Judging by the war diary of one of those five Corps Areas, the so-called ‘Home Counties Area’, local commanders were urged to ensure that troops and Local Defence Volunteers practiced manning these ‘fences’, especially the concrete road-blocks that were put in place where ‘fences’ crossed local roads.⁸⁵⁹ Thus, Brooke’s attempts to de-emphasise linear defence at the local level appear to have done little to prevent the ‘grid

⁸⁵⁶ TNA, WO 166/75, Eastern Command, Quartermaster, 1940, Memo entitled; *Maintenance of Home Guards Under Invasion Conditions*, from Lieutenant-Colonel J.M. Benoy, Deputy Quartermaster General, to The War Office (and copied to the Commander-in Chief Home Forces and the Inspector General, Home Guard), dated 4 September 1940.

⁸⁵⁷ TNA, WO 199/1648, C.-in-C. Home Forces Conference: Points Raised by Corps and Divisional Commanders, November – December 1940, Note from Lieutenant-General Sir Harold Franklyn to HQ Southern Command, dated 2 December 1940.

⁸⁵⁸ TNA, WO 166/344, war diary of XII Corps, General Staff, paper by the Brigadier, General Staff, XII Corps, addressed to each of the five Corps Areas entitled, *Defence in Depth, Grid System*, (859 G.Ops.), 10 August 1940.

⁸⁵⁹ TNA, WO 166/1214, war diary of Home Counties Area, XII Corps, 1939-1940.

system' expanding steadily in September and October 1940. Thus, for example, on 4 September, according to his brigade's war diary, a certain Brigadier Whitfield made a:

Recce of the Grid System line within the 136 Brigade area, before spending the afternoon of 12 September with the 4th Battalion, Duke of Cornwall's Light Infantry, considering their Grid Defences, before then attending a conference on 17 September (at 45 (West County) Division's HQ, to discuss Defence Schemes and the Grid System.⁸⁶⁰

And up in north Kent in early October, within the area defended by 1 London Brigade, a Major Cockerton of 264 Army Field Company, Royal Engineers, undertook a 'Recce of Grid-Line LP-WG around Headcorn', (near Maidstone).⁸⁶¹ Thus, this new 'grid-system' had developed into a significant additional static defensive presence by the time the perceived invasion threat peaked. It would thus (most likely) also have required significant Army manpower to operate it effectively.

In summary then, it is fair to conclude that, following an invasion in September 1940, a considerable proportion of the infantry forces of XII Corp that had not already been mauled as German forces came ashore and advanced inland would, in many instances, have found themselves drawn into some form of static defensive role – be it manning a 'stop-line', defending the 'grid system' or helping to defend an important 'nodal point' - that would also have contained civilians who needed protecting. This latter point is crucial given the numbers of these all-round defended positions and the fact that, as the enemy approached, each would be put under military control. Thus in 1941 it was noted at a meeting of the Home Defence Executive that this should occur at the discretion of the local military commander when 'the enemy are threatening the town'.⁸⁶² Furthermore, even in a paper written in 1942 by Southern Command, it was recognised that 'nodal-points' could not endure attack by German armoured and infantry divisions without assistance from field forces.⁸⁶³ Sadly then, if Brooke had hoped that by 'stamping out' linear defence, front-line formations such as 1 (London) Division and

⁸⁶⁰ TNA, WO 166/992, war diary of 136 Brigade (Headquarters), 45 (West County) Division, XII Corps, entries for 4, 12 and 17 September 1940.

⁸⁶¹ TNA, WO 166/1214, war diary of Home Counties Area, XII Corps, 1939-1940, entry for 5 October 1940.

⁸⁶² CAB 21/1106, Home Defence Executive Committee, Notes of 193rd Daily Conference held on 14 March, 1941.

⁸⁶³ WO 199/544, Keeps or Fortified Villages, (Nodal Points or Anti-Tank Islands), September 1940 to October 1942, Note from Southern Command to V Corps and VIII Corps, '*Anti-Tank Islands and Centres of Resistance*', dated February 1942.

45 (West County) Division would have been able to devote many more resources to taking the fight to the enemy as they moved inland, this appears to have been unrealistic.. Firstly, as numerous defence plans in war diaries indicate, many of these formations would still have manned ‘stop-lines’ when all else had failed. Secondly, even if they did not do this many would have been obliged to play some role defending the greatly increased range of inland ‘all-round’ defences that existed by the time the invasion crisis reached its peak. Put simply this, coupled with the limited mobile forces these formations had, would have materially diminished the capability of the infantry divisions within XII Corps to pursue the counter-attacking ‘ideal’ that Brooke (and Churchill) had advocated so forcefully. Thus, Brooke’s preferred local tactic of ‘offensive-defence’ would have probably proved elusive.

Furthermore, should formations from Southern Command have been called upon to help repel an invasion in the XII Corps area, they would doubtless themselves have been constrained by the need to man the ‘fortresses’ and major ‘nodal- points’ that by September 1940 were just as prevalent in Hampshire and Dorset as they were in the south-east. Thus, by late August 1940, there were (amongst many inland defences) ten so-called ‘anti-tank islands’ in the V Corps area which had all been prepared for all-round defence - designed to channel tanks away from a town and into a ‘killing zone’ on open ground. One, for example, was Blandford Forum on the River Stour, the defences of which were completed on 24 August.⁸⁶⁴ All would have needed garrisoning – at least (one assumes) until it was clear that no beach landings or parachute landings had taken place, or were likely to take place, in the V Corps Area. To put it another way, formations trying to repel an invader in the XII Corps area during the first few days following a landing, would have been on their own.

⁸⁶⁴ WO 199/1714, Construction of GHQ Zones; Anti-Tank Islands and Centres of Resistance, Southern Command, 1940.

Flexible pragmatism or a backward step? An assessment of Ironside's original plan

Ironside's plan for Home Defence in June 1940 involved what might be termed a more 'blended' fighting doctrine involving mobile counter-attacking where possible, coupled with linear and other forms of static defence. Although equipment shortages were one reason for this, it is arguable that his approach did a better job of exploiting what the British Army was capable of in the summer of 1940, than the more single-minded focus upon counter-attacking at all costs advocated by Brooke.⁸⁶⁵ In essence, going back to General Sir James Marshall-Cornwall's ill-fated dinner at Chequers, Ironside's 'doctrine' espoused a more overt combination of '*Hitting and Sitting*'. It does however need to be emphasised that Ironside, in contrast to some of the discrediting myths about him at the time, was as much a believer as Brooke and Churchill in the need for mobile counter-attacking forces, both locally and within the GHQ Reserve – had such capability existed when he led the Home Forces. His diary is littered with comments that support this. For instance, it reveals that he yearned for 'more mobility' following a visit he made to Kent on 25 May. Furthermore, he wrote on 30 May that mobile forces should attack the enemy at once to 'nip a landing in the bud' and his entry for 1 June underlined the importance of 'mobile columns' to enhance the Army's static defences.⁸⁶⁶ But this desire was tempered by the practical reality of what the GHQ Reserve could execute to a greater degree than Brooke was willing to concede, just a few weeks later. Noting the increased focus on 'attack' now being advocated by Brooke and the War Office in the wake of the experience in France, Major-General Sir Charles Gwynn, *The Daily Telegraph's* Military Correspondent (in June 1940), warned of the pitfalls of becoming fixated with the potential of either offensive or defensive actions. Both, he urged, would be needed to defeat an invasion.⁸⁶⁷ Ironside appears to have recognised this, Brooke in some ways less so. Unless, that is, Brooke knew full well that what Churchill was demanding in terms of aggressive counter-attacks to repel a German invader was simply not yet possible in the summer 1940, but went along with it knowing that to argue the case would have been unproductive at a moment of such crisis. That said, no evidence to support this hypothesis has come to light during this study.

⁸⁶⁵ TNA, WO 166/1, war diary of GHQ Home Forces, GHQ Operational Instruction No.3, (General Sir Edmund Ironside's Defence Plan), dated 26 June 1940.

⁸⁶⁶ *Time Unguarded; The Ironside Diaries*, entries for 25, 30 May and 1 June 1940.

⁸⁶⁷ Article by Major-General Sir Charles Gwynn, Military Correspondent, *The Daily Telegraph*, 24 June 1940.

Few would dispute Brooke's brilliant leadership in France in both May and June, or that he went on to make a superb Chief of the Imperial General Staff from the end of 1941 onwards. But, in the early months of his tenure commanding the Home Forces in 1940, Brooke's focus upon mobile combined arms counter-attacking warfare, (something the historian, Nigel Hamilton states he pursued with 'relentless determination') was, in the view of this study, unrealistic - both in relation to what the GHQ Reserve could then deliver and given the need to help to defend key 'nodal points' etc in the XII Corps Area.⁸⁶⁸ Ironside, by contrast, was a more experienced senior officer, who had also already been Chief of the Imperial General Staff – a job he had not enjoyed. He was thus delighted when Churchill offered him the chance to take on the 'operational' role of commanding the Home Forces, as a Field Marshal, when the Battle of France came to an end.⁸⁶⁹ Ironside was also someone whom Churchill himself had described in 1938, as 'The finest military brain in the Army at present.'⁸⁷⁰ Furthermore, although Ironside's plan for home defence (when discussed by the Chiefs of Staff Committee on 26 June 1940), came in for criticism, this largely related to how the GHQ Reserve forces were positioned and to confusion about how committed the plan was to repelling an enemy on the beaches, rather than inland.

In response to this meeting, changes were made by Ironside to the location of the GHQ Reserve (as already noted), but the key point is that almost all Ironside's dispositions of infantry and armoured divisions were left unchanged by Brooke when he took over - until, that is, reinforcements began to be moved into the XII Corps area in September 1940. It was Ironside, for instance, who moved what was left of 1 Armoured Division from Wiltshire to the Guildford area at the end of June 1940 and 1 Canadian Division to Dorking to cover the gap on the Surrey Hills. It was also Ironside who moved IV Corps down into Hertfordshire and it was he who appointed Lieutenant-General Sir Andrew Thorne to lead XII Corps -arguably the most crucial role in the Army as the perceived invasion threat grew. Furthermore, it was Ironside who warned Thorne that the (somewhat mature) Major-General Liardet, commanding what would have been the vital 1 (London) Division covering Kent, might not be sufficiently capable in the event of an actual invasion. This is even more noteworthy given that Brooke, despite his 'purge'

⁸⁶⁸ Nigel Hamilton, *Monty, The Making of a General 1887-1942*, (London: Book Club Associates, 1981), p. 437.

⁸⁶⁹ *Time Unguarded; The Ironside Diaries*, entry for 26 May 1940.

⁸⁷⁰ Martin Gilbert, *Winston. S. Churchill*, (8 Volumes, London; Heineman, 1966-88), Volume V, p. 887, Letter from Churchill to Sir Abe Bailey, 4 July 1938.

of old and tired senior officers (that he mentions continually in his diary during the summer of 1940), curiously left Liardet in post.

On top of this, Ironside's critics also misunderstood (or chose to misunderstand) that his 'stop-lines' were only supposed to be a last line of defence and thus would only have been manned when all else had failed. This was certainly a point that both Lieutenant-General Sir John Dill and Air Chief Marshal Sir Cyril Newall went out of their way to say they supported Ironside on, during the Chiefs of Staff Committee meeting on the 26 June.⁸⁷¹ Interestingly, according to Ironside's diary, he had lunch with 'Brooke the Corps Commander' at Wilton on 16 July, i.e., only a week or so before Brooke was promoted into his role.⁸⁷² Presumably the subject of the defence of the UK was raised and one assumes Brooke had every opportunity to tell Ironside how opposed he was to 'stop-lines'. If he did, Ironside makes no mention of it his diary. Furthermore, William Foot, argues that Ironside deserves more respect than he gets given that, in his view, last-ditch 'linear defence' was one thing the British Army could do well in the summer of 1940. He also points out that 'stop-lines' were used by the Germans later in the war, both in Italy and in defence of the Reich.⁸⁷³ Finally, it is also noteworthy that on 11 July, Churchill toured the defences along the south-east coast together with Lieutenant-General Andrew Thorne, from Dover all the way round to Whitstable. John Colville, Churchill's assistant private secretary, accompanied the trip and wrote up the tour in the diary he kept and published after the war. At no point is any mention made of Churchill making negative comments about either 'stop-lines' or static defensive positions in general.⁸⁷⁴

It transpires that the Wehrmacht's own assessment of the British Army at the time was that, although its overall capability was considered low, it had proved in France that it had an ability to defend doggedly. This is underlined in the same Cabinet Office file referred to earlier, (relating to British reports compiled in 1950 from senior Wehrmacht testimonies and captured sources).⁸⁷⁵ Indeed, so impressive had the defensive resistance been (in the Wehrmacht's eyes)

⁸⁷¹ TNA, CAB 79/5/21, War Cabinet, Chiefs of Staff Committee, minutes for 26 June 1940.

⁸⁷² *Time Unguarded; The Ironside Diaries*, entry for 16 July 1940.

⁸⁷³ Foot, *The Battlefields That Nearly Were*, pp. 89-90.

⁸⁷⁴ John Colville, *The Fringes of Power; Downing Street Diaries, Volume One, 1939 – October 1941*, (London, Hodder and Stoughton, 1985), entry for 11 July 1940.

⁸⁷⁵ TNA, CAB 101/347, German Military Preparations for Operation Sea Lion; German Estimate of the British Army, July to December 1940, Paper Entitled; *Sea Lion, 1940, German Estimates of the British Army, July to September 1940*, dated 1950, [This contains documentary evidence, within Appendix A, from, amongst other sources, a report, by the Wehrmacht's IV Corps entitled; *Experiences Gained in Action Against English Troops*, dated 30 July 1940].

during the retreat to Dunkirk that tenacious resistance from British troops was now expected in the event of an invasion being attempted. Furthermore, within the same Cabinet Office file, there is a summary of reports by the German 16th Army, noting that the many hedgerows in the south-east of England would make fighting additionally difficult, together with an analysis of the major ‘stop-lines’ in Kent and Sussex all of which had been mapped and photographed. Thus, the Wehrmacht’s view appears to have been that, far from being ‘white elephants’, some of these linear defences posed a considerable challenge for the landings that were being planned.⁸⁷⁶

Ironside also had foresight in other areas. For instance, Foote also points out that, as Chief of the Imperial General Staff up to Dunkirk, Ironside was one of the few Allied commanders who had anticipated the new type of mobile armoured warfare that Hitler was about to unleash on France and that he was also one of the few that had foreseen the dangers of the Germans attacking through the Ardennes in May 1940.⁸⁷⁷ This latter point is also underlined by Nigel Hamilton in his study of Montgomery.⁸⁷⁸ Furthermore, Hamilton also reminds us that it was Ironside, not Gort, who was originally chosen to lead the British Expeditionary Force until Hore-Belisha selected Gort instead – most likely to remove him from the position of Chief of the Imperial General Staff. Either way, Hamilton concludes that Ironside would have been the better commander of Britain’s forces in France.⁸⁷⁹ This conclusion is also firmly supported by Brian Bond in an article he wrote in 1981.⁸⁸⁰

In terms of further insights into Ironside’s capabilities from primary sources, few new ones have been unearthed by this study – which is hardly surprising given the prolonged and intense interest in this period of history amongst historians. It should, though, be noted that Liddell Hart was not a fan of Ironside. In July 1940, he wrote that even though he felt that Ironside was clearly enjoying his new job commanding the Home Forces, ‘he is not very good, nor strong.’⁸⁸¹

⁸⁷⁶ Ibid., Appendix B, documentary evidence; (1) Appendix 1 of the Wehrmacht’s 16th Army’s Preliminary Instruction for ‘Sea Lion’, 9 September 1940 [Source: 16 Army file no.14/558 (3)], and (2) a further 16th Army report, dated 30 July 1940 [Source: 16th Army File no. 14/588 (20)].

⁸⁷⁷ Foot, *The Battlefields That Nearly Were*, pp. 89-90.

⁸⁷⁸ Nigel Hamilton, *Monty, The Making of a General 1887-1942*, (London: Book Club Associates, 1981), p. 338.

⁸⁷⁹ Ibid., p. 319.

⁸⁸⁰ Brian Bond, ‘Leslie Hore-Belisha at the War Office’, in *Politicians and Defence: Studies in the Formulation of British Defence Policy 1845 – 1940*, ed. by Ian Beckett and John Gooch (Manchester: Manchester University Press, 1981), pp. 110 – 130, (p. 124).

⁸⁸¹ LHCMA, Liddell Hart Papers: 11/1940/72, Notes for History, 16 July 1940.

But how reliable is this assessment and how impartial is it? Certainly, from the War Office's perspective, much of Liddell Hart's credibility had been undermined during his one year tenure as Hore-Belisha's unacknowledged 'military advisor', to the extent that Major-General Pownall described him, in June 1938 as 'a sinister influence who has done much harm.'⁸⁸² Liddell Hart's private papers also contain a note outlining the thoughts of an unnamed Army officer who, in 1940, had apparently mentioned to him that Ironside had two flaws; a dominant personality and a lack of moral courage.⁸⁸³ Again, how reliable this is as a source of truthful insight is hard to determine, especially in relation to the (very subjective) latter point, which Liddell Hart does not state that he agrees with. As to having a 'dominant personality', the same accusation could be levelled at Brooke (as explored in Chapter One), never mind Auchinleck, Portal, Montgomery and of course, Churchill himself. Indeed, many would argue that such a character trait is vital in any senior military commander. It should also be noted that the Permanent Under Secretary at the War Office in 1940, Sir Percy Grigg (who had served under Churchill at the Treasury), was also no fan of Ironside. According to David French, he accused him of lacking 'precision of thought and an orderly mind'.⁸⁸⁴ But again, this needs putting in context. Firstly, it undoubtedly refers to Ironside's tenure as Chief of the Imperial General Staff, a role he never wanted and which was arguably impossible to shine in during the era of Britain's ill-fated operations in France. Secondly, although Grigg had a very considerable intellect, having topped the civil service examination in 1913, he also had a reputation (according to Daniel Todman) for being 'a legendarily tough career bureaucrat'. He also had no military experience. Again then, how relevant is Grigg's assertion in relation to Ironside's leadership of the Home Forces?⁸⁸⁵

Also, within the Imperial War Museum's Sound Archive there is a long testimony from an officer in the Royal Engineers by the name of Brigadier Harry Hopthrow which deserves mention. Hopthrow (as a Lieutenant-Colonel in 1940) served both as a staff officer within the British Expeditionary Force's HQ in France and then as Assistant Director of Works within GHQ Home Forces – a role which, incidentally, involved helping to plan the 'GHQ-line'.⁸⁸⁶ He therefore had first-hand experience of working with both Ironside and Brooke. This

⁸⁸² Pownall, *Chief of Staff: The Diaries*, entry for 3 June 1938, p. 125.

⁸⁸³ LHCMA, Private Papers of Basil Liddell Hart, Note on Ironside, Item: 11/1940/14.

⁸⁸⁴ David French, *Deterrence, Coercion and Appeasement: British Grand Strategy, 1919 – 1940*, (Oxford: OUP, 2022), p. 504.

⁸⁸⁵ Daniel Todman, *Britain's War: A New World 1942-1947*, (London: Penguin, 2021), p.127.

⁸⁸⁶ IWM, Sound Archive, No. 11581/23 and 24, Harry Hopthrow, Brigadier and Assistant-Director of Works, GHQ Home Forces.

(somewhat rambling) testimony was recorded in 1990 when Hopgood (who also served in World War One) was at an advanced age. But, in response to a specific question he states that Brooke was better suited to leading the Home Forces in the middle of 1940 than Ironside. However, when pushed as to why this was, Hopthrow struggles to give a particularly compelling answer, other than to say that; (1) he did not regard Ironside as ‘serious’ enough, (2) that he ‘had not been trained for the role’ and (3) that his focus was upon defending the beaches above all else. And yet, as has been shown, this is not a balanced description of Ironside’s plan, nor does it consider the constraints under which it was put together. Furthermore, when then questioned further as to what specific skills Brooke had that made him the better man for the job, Hopthrow’s answer is thin. All he comes up with was that, (1) Brooke had been a ‘professional general’ in France, (2) that ‘If he asked you to do something you made sure you did it and did it right,’ and (3) because his plan centred around using a mobile force to repel an enemy invasion. But, as we now know, Ironside’s plan also involved copious use of mobile forces - to the extent that they existed back in June 1940. And in any event the use of a strategic reserve was laid out in the Army’s doctrine at the time – it did not come from Brooke. The key point here, is that a degree of ‘myth’ appears to have built up (or been allowed to take root) over many decades, that Brooke was far and away the best choice to lead the Home Forces as the invasion crisis moved towards its peak. However, in the opinion of this study, the evidence to prove this assertion, is not particularly strong – especially in relation to the notion (echoed by Hopthrow) that Brooke somehow was a more innovative military thinker than Ironside.

Interestingly, the author of a recent new biography of Ironside makes the accusation that Brooke used his ‘political nous’ to further his own cause when Churchill made that fateful visit to Southern Command on 17 July 1940.⁸⁸⁷ Given that this biographer is Ironside’s own grandson, it is hardly an unbiased conclusion, but it nevertheless might have more than a ring of truth about it. It should also not be forgotten that Basil Liddell had described Brooke, only a couple of months previously, as ‘very ambitious’ in the note he wrote about his perceptions of the strengths and weaknesses of various senior Army officers that has already been referred to.⁸⁸⁸ Ambition is one thing, but to undermine someone else as part of ‘political manoeuvring’ is another – and if this indeed occurred it may well have contributed to Ironside’s demise only

⁸⁸⁷ Edmund Ironside, *Ironside: The Authorised Biography*, p. 374.

⁸⁸⁸ LHCMA, Private Papers of Sir Basil Liddell Hart, 11/1940/34, *Further Note on Senior Officers*, May 1940.

a few days later. For it would have to be said that Brooke had ‘form’ when it came to criticising colleagues. In his diaries he was (privately) very frank about what he saw as Gort’s failings at the helm of the British Expeditionary Force in France back in the winter of 1939/40– noting amongst other things his commanding officer’s over-focus upon detail, his lack of strategic insight and his willingness to sign up to a French plan that Brooke felt was unrealistic.⁸⁸⁹ Some of these observations may or may not have been valid at the time, but a picture emerges of Brooke also expressing some of these doubts to colleagues, not least Dill his then fellow corps commander. The extent to which Brooke socialised his views further is hard to pin down but it is known that Lieutenant-General Sir Andrew Thorne was annoyed to hear that Gort was being undermined.⁸⁹⁰ Furthermore, Brooke’s biographer, David Fraser, admits that Gort knew in France that Brooke did not rate him.⁸⁹¹ This must have been hugely disconcerting for Gort at the time especially given that the historiography constantly underlines that it was Gort who ultimately saved the British Expeditionary Force by taking the decision on 25 May, entirely on his own, to abandon the proposed attack in conjunction with the French over the Canal de la Sensee and instead ordering British forces to man the Ypres-Commines line on the eastern side of what was to become the ‘Dunkirk corridor’ and tasking Brooke with closing the gap that was opening up near the coast following the capitulation of the Belgian Army – something Brooke achieved brilliantly.⁸⁹² Yet Brooke’s fulsome diary entries for 24, 25, 26 and 27 May, admittedly written in the heat of battle, make no mention of Gort whatsoever. Notwithstanding the huge strain both men were under, all this appears to demonstrate Brooke’s intolerance and his supreme confidence in his own abilities. And yet it was Gort who, in 1937 as Chief of the Imperial General Staff, had held out against Hore-Belisha to give Brooke the opportunity to command the Mobile Division - despite never having handled tanks before.⁸⁹³

Part of the reason that Churchill gave Brooke command of the Home Forces, may well have been to position him for the role of Chief of the Imperial General Staff in due course. However, Brooke could have simply been left where he was running Southern Command during the invasion crisis and another role could then have been found for him to facilitate his continued (and deserved) rise to the top of the Army. Either way, leaving Ironside in post until the winter

⁸⁸⁹ For instance – *War Diaries*, Alanbrooke, entries for: 21 November 1939 and 22 November 1939.

⁸⁹⁰ Colville, *Man of Valour*, p. 235.

⁸⁹¹ Fraser, *Alanbrooke*, pp. 110-111.

⁸⁹² For more information on the events of 25 May 1940 and their implications for the BEF see: Sebag-Montefiori, *Dunkirk*, p. 247, Allport, *Britain at Bay*, pp. 242-245, More, *The Road to Dunkirk*, pp. 40-55 Colville, *Man of Valour*. pp. 76, 235 and 268.

⁸⁹³ Fraser, *Alanbrooke*, pp. 90-91 and Macksey, *Armoured Crusader*, pp. 141-142.

of 1940 when the immediate threat of invasion had passed, would have ensured that the Army was ready to fight an invasion attempt in 1940 with a more ‘balanced’ doctrine - one that it was more capable of executing and doubtless more comfortable with. Brooke could then have taken over the Home Forces throughout 1941, during which the losses of equipment and armoured fighting vehicle were finally addressed and under his direction the Army was able to build real capability in large-scale mobile combined arms counter attacking for the first time, as evidenced by the major anti-invasion exercises (Exercise Bulldog and Exercise Bulldog), that were held in June and October 1941 respectively. These provided a ‘showcase’ for the ‘new’ mobile combined arms doctrine and although, as various War Office files show, neither of these exercises went smoothly no one was better placed than Brooke to ensure that vital lessons were learnt from them.

In summary then, looking across the conceptual component, Brooke’s advocacy of an approach to repelling an invasion that was centred around mobile combined arms at the operational level and that also heavily dependent upon counter-attacking at the local level, ran the danger of simply being too ambitious in September 1940. Interestingly, this was also the view of the German High Command. For as early as 11 August, German military intelligence was aware that, following Brooke’s appointment, there had been a change in the British defence plan and that offensive mobile operations would now be the cornerstone of the Army’s approach in the event of an invasion. According to the diary of General Halder, Chief of Staff of the German Army High Command (Oberkommando Des Heeres) – that was written after the war - such mobile operations remained ‘alien to the British Staff’ at the time and would thus not have been successful.⁸⁹⁴

On top of this, although local linear defences (to delay the advance of an enemy inland until mobile GHQ Reserve forces arrived) were down-graded by Brooke, this edict appears to have been largely ignored - at least in the South-East. Furthermore, the acceleration in the construction of a plethora of new all-round static defences in Kent and Sussex in the run up to the peak of the crisis may have inadvertently led to too many front-line troops being tied down within both ‘nodal points’ and ‘stop-lines’, rather than attempting to push an invader back into the sea. Indeed, one can only assume that Churchill was never fully aware of what the focus

⁸⁹⁴ TNA, CAB 101/347, German Military Preparations for Operation Sea Lion; German Estimate of the British Army, July to December 1940, Paper Entitled; *Sea Lion, 1940, German Estimates of the British Army, July to September 1940*, Section 1, p.156, extract from Halder’s Diary, entry for 11 August 1940.

upon all-round defence in the south-east might have meant to his call for ‘audacious counter-attacks’ at the local level. Overall, and with a heavy dose of hindsight, it is not clear that Brooke for all his evident capability and potential brought significantly more to the leadership of the Home Forces in the second half of 1940 than Ironside - who had found himself moved aside after just two months in post. The flexibility inherent within Ironside’s anti-invasion plans might well have had the edge on the more dogmatic approach taken by Brooke – until, that is the Army began to develop much more of a combined arms capability. As Brooke’s defence plan for 1941 outlines, the establishment of more trained formations would have allowed an ever-greater bulk of country’s field army to operate as part of the strategic counter-attacking reserve alongside new armoured formations, leaving the defence of the beaches to second class formations increasingly aided by the Home Guard.⁸⁹⁵ But back in the middle 1940, with an invasion considered imminent, all this was a long way off.

Also, it can be argued that, in September 1940, too many of the key formations within the GHQ Reserve were located too far from where the main thrust of an invasion looked (with an increasing degree of certainty) like being. Many front-line troops on the southern coast in the summer of 1940 must have questioned (rightly) whether, in the event of an invasion, the GHQ Reserve’s (relatively modest) armoured counter-attacking forces would ever get to them in time. Saying this out loud would have been viewed as defeatist but it was, for instance, the concern of the commanders of the formations visited by both Churchill and General Ismay, along the Suffolk coast in late June 1940 – as reported by Ismay (in person) to the Chiefs of Staff Committee.⁸⁹⁶ Moving more of these forces ‘into theatre’ as the crisis grew, (as was being planned in the case of 1 Canadian Division and 1 Army Tank Brigade) might have made a significant difference if an invader had landed. Whether Ironside might have insisted upon this we shall never know.

Finally, regardless of whether Brooke or Ironside was at the helm, the Army’s ability to execute a combined arms fighting doctrine in the summer of 1940 was also undermined by the Air Force’s lack of capability to provide large-scale, accurate and timely tactical air support to formations on the ground. In fairness, this was a desperate time during which the Royal Air Force was stretched to its limit, but it remains true that more could have been done to provide

⁸⁹⁵ TNA, WO 199/569, Military Defence of the UK, (November 1940), Brooke’s Plan for Home Defence for 1941, 28 November 1940.

⁸⁹⁶ TNA, CAB 79/5/21, War Cabinet, Chief of Staff’s Committee minutes, 26 June 1940.

the support the Army was calling for, if only the Air Ministry had recognised the true value that tactical battlefield support could provide in modern warfare. Doubtless too, as David Hall maintains, the Army could have been less antagonistic towards the notion of shared operational authority – something it gradually became more open to in the Western Desert.⁸⁹⁷ But the sad truth is that, if anything, the ability of the Royal Air Force to provide tactical support to the Army in southern England declined, rather than increased, between June 1940 and the peak of the perceived invasion threat in September.

⁸⁹⁷ Hall, David, *Strategy for Victory: The Development of British Tactical Airpower, 1919 – 1943*, (Connecticut: Praeger Security International, 2008), p. 254.

Conclusions

This thesis grew out of the author's deep interest in how well-prepared Great Britain's Army was to resist a determined invader in the late summer of 1940, a question that has been relatively under-explored in the extensive historiography of almost every aspect of that tumultuous year. Given that the British Expeditionary Force had only recently returned from its punishing experience in France and had done so without most of its equipment, it is not surprising that where historians have investigated this question their conclusions have pointed towards the Army not being as prepared as it needed to, be had an invasion taken place in September 1940. This is also the broad conclusion of a doctorate undertaken in 1996 by David Newbold.⁸⁹⁸

This study, however, has looked at the capability of the actual forces charged with repelling such an invasion through the lens of the modern British Army's Model of Fighting Power. This has enabled fighting capability to be evaluated against a range of both qualitative and quantitative criteria across the model's three dimensions, i.e. the Moral, the Physical and the Conceptual components of an army's 'fighting power'.⁸⁹⁹ The findings have proved something of a revelation. Indeed, across each component of the Model of Fighting Power, the capability of XII Corps and the GHQ Reserve to repel a serious invasion of Kent and Sussex in September 1940 is found to have been wanting - in many areas significantly so.

Beginning with the Moral component, focused upon morale and leadership, it transpires that both were a potential problem. Measuring morale, particularly so long after the event, is not an exact science but the truth is that the morale of these formations appears to have been 'mixed' as the perceived invasion threat grew – despite the government's 'upbeat' presentation of events. As the summer of 1940 progressed, Army morale was not helped as by the growing awareness amongst those forces that had not been part of the British Expeditionary Force, of the true extent of the Army's defeat in France. Understandably, amongst those that had escaped at Dunkirk, the idea of fighting such a ruthless and determined force as the German Army again, only a few months later, weighed heavily on the minds of many. Furthermore, those troops guarding the south-east coast had to run a gauntlet of fatigue and boredom caused by

⁸⁹⁸ Newbold, 'British Planning and Preparations to Resist Invasion'.

⁸⁹⁹ The British Army's Model of Fighting Power, Land Operations and Warfare Development Centre, British Army Doctrine Publication, AC 71940.

being on a high state of alert (at night) for extended periods of time. Not surprisingly, this led to instances of ill-discipline and absenteeism despite the widespread belief that an invasion of the very coastline they were guarding was imminent. Had the Army's initial counter-attacks against an invader failed, this deficit in morale would potentially have become much more of an issue.

Furthermore, the quality of senior leadership of these front-line forces (at the divisional level and above) was not particularly high overall and within that cadre there were a small number of obvious 'weaker links'. In the view of this study, the most problematic of these was the Canadian, Lieutenant-General Sir Andrew McNaughton, Largely for political reasons, he would have had overall command of half of the strategic reserve and thus most of the nation's 'modern' tanks in the event of an invasion. He was seen by many as lacking the experience, capability, or temperament for such a key role. A handful of the generals commanding the front-line forces, such as Lieutenant-General Sir Andrew Thorne (commanding XII Corps in Kent and Sussex), had led divisions during the battle of France and had distinguished themselves. Most, however, had done neither. Some were also close to retirement or, in the case of Major-General Willoughby Norrie (commanding the vital 1 Armoured Division), were brand new in post – the result of appointments made by Lieutenant-General Sir Alan Brooke following his own elevation to command the Home Forces in late July 1940. With hindsight, it is surprising that more use was not made of senior officers from the Army's regular divisions. Four of these divisions had returned from France in a depleted state and were now re-building. Given the national emergency, some of their senior commanders could doubtless have made a real difference to either the strategic reserve or to the formations guarding vulnerable coastlines – especially in Kent and Sussex.

Turning to middle-ranking and junior-ranking officers in the front-line forces tasked with repelling an invasion, a full assessment of these individuals clearly lies outside the scope of this study – even if reliable data existed. However, little evidence has been found in historical archives to support the assertion made both in the Army's 'Bartholomew Report' into the campaign in Flanders and by Brooke himself, that junior leaders needed to demonstrate more offensive leadership capability. Quite the contrary, in fact, based upon numerous testimonies from the troops underneath junior leaders during the retreat to Dunkirk and when defending its perimeter. Thus, junior (commissioned) leaders may have been made convenient scapegoats back in the summer of 1940 for the wider failings of the British Expeditionary Force in France.

The notion that this level of leadership would have been a 'weak link' in the event of an invasion appears harsh.

In examining the different elements of the Physical component of 'fighting power', this study has found that there were few issues relating to manpower in the front-line forces that would have fought an invader. Their formations were largely at their prescribed establishment even though those that had suffered losses in France had had their ranks boosted by young conscripts with only basic training behind them. In the summer of 1940, the distinction in capability between territorial and regular formations was marked even though, as the war progressed, it quickly reduced. Crucially, the bulk of the formations in both the strategic reserve and in Kent and Sussex were 'first-line' or 'second-line' territorial divisions. Based upon reports of how different territorial troops performed in France, the 'second-line' formations would have (most likely) found it hard to counter-attack German forces successfully even though they would have been fighting on home soil.

The shortages of equipment across the British Army following the vast losses of materiel in France have been well explored within the historiography to date. However, this study has shown that within the three corps that would have been initially tasked with repelling an invasion, the shortages were still very considerable. Items such as anti-tank guns, 3-inch mortars, 25-pounder field guns, Bren guns, light anti-aircraft guns (especially the new Bofors gun) and the thousands of trucks upon which mobility depended were in shorter supply in September 1940 than has been acknowledged hitherto. Precise inventories of these weapons at the divisional level are hard to come by, but, as an example of what these shortages meant 'on the ground', the five battalions of New Zealand troops that were sent into Kent from the strategic reserve to bolster front-line forces as the invasion crisis peaked in September 1940, had only some 40 percent of the anti-tank guns they should have had. They also had only around half of their establishment of Bren guns.

In addition to this, the Army was desperately short of 'modern' tanks - namely new infantry tanks and the best of the faster but more lightly armoured cruiser tanks. That said, cruiser tanks had proved vulnerable to mechanical breakdowns and to German anti-tank guns in France and whilst the Mk II (Matilda) infantry tank had performed better, this was still a weapon system that the Army was learning to fight with - and a slow one at that. In truth, too many of the Army's tanks in the summer of 1940 were merely obsolete light tanks that had mainly been

used for reconnaissance duties in France. Furthermore, the decision taken by Churchill and the War Cabinet to send a meaningful proportion of the nation's 'modern tanks' to the Middle East, just as the invasion crisis was reaching its peak, would have made the situation markedly worse in the event of German landings. It was, in short, a very considerable gamble. Finally, the (37mm) 2-pounder gun that served as both an anti-tank weapon and as the standard main gun tank armament, had struggled to penetrate the frontal armour of the German Army's more modern armoured vehicles in France. Not surprisingly, this issue remained unaddressed just a few months later.

The failure of the British Army to train sufficiently for mobile combined arms warfare, prior to 1939, has also been well examined in the historiography. It is therefore no surprise that much ground needed to be made up in the summer of 1940 if the GHQ Reserve (and particularly its armoured formations) were to execute the type of large-scale mobile combined arms counter-attacks that Brooke demanded. Sadly, between July and September, despite the priority he attached to this, there were simply not enough corps-level exercises (i.e., at the operational level of warfare) involving motorised infantry, tanks, artillery and aircraft all counter-attacking together. Thus, the GHQ Reserve fell some way short of being the force it would have needed to have been, had an invasion taken place. Real progress only started to happen in 1941 when, under Brooke's leadership and with an improved equipment situation, two very large-scale anti-invasion exercises took place. Both revealed significant deficiencies. Furthermore, the training undertaken by the formations guarding the south coast (i.e. at the more tactical level of warfare) suffered from a lack of realistic divisional and brigade exercises, partly thanks to the need to man beach defences and because of shortages of both transportation and armoured vehicles. In summary, the three corps of front-line forces that would have faced an invader were, for the most part, insufficiently trained for the rigours of taking on such a highly committed and professional force as the German Army had proved to be.

Finally, in relation to the Conceptual component of 'fighting power', Brooke ultimately demanded an operational fighting doctrine for his strategic GHQ Reserve that, although adhering to the Army's latest doctrinal theory at the time, was for the most part beyond the capability of these forces to execute in September 1940. In truth, large scale combined arms warfare was as yet neither fully understood, agreed upon, embedded, or sufficiently practised across the British Army. Furthermore, in the face of much debate as to where an invasion might take place, the forces of the GHQ Reserve were spread out across Salisbury Plain, the

Surrey Hills, Hertfordshire, the Thames Valley and Cambridgeshire. Thus, getting these forces 'into theatre' at pace would have been a real issue, particularly in the face of Luftwaffe plans to intervene to prevent this – never mind the likely problem of refugees flooding the narrow roads of Kent and Sussex. Some of this 'dilution' of the GHQ Reserve was fueled by Churchill's strongly held view that the East Coast remained a likely German target. Indeed, as Minister of Defence, Churchill intervened directly, not just on this topic, but in a variety of other areas in the summer of 1940 – not always profitably. At least part of Brooke's focus upon aggressive counter-attacking at all costs and his distaste for the linear defences developed by his predecessor, Lieutenant-General Sir Edmund Ironside, stemmed from Churchill's views. Furthermore, the challenge of repelling an invader was exacerbated by the fact that the Royal Air Force only had a limited number of the light bombers deemed at least partly suitable for ground support operations. Given the considerable losses of such aircraft in France, the Air Force's view that tactical support was, for the most part, a questionable use of aircraft that might be better employed on strategic bombing missions is understandable – but regrettable.

Down in the XII Corps area of Sussex and Kent, Brooke's edict that linear defences should be de-emphasised did not, as he had hoped, free up the local formations guarding the coast to counter-attack more readily. 'Stop-lines' continued to play a role in the defence plans of many units – for when all else had failed. Furthermore, many units from these front-line forces would also, most likely, have found themselves playing some form of role defending the very considerable number of 'nodal points' and inland towns and villages that by late 1940 had been fortified for all-round defence - to delay the advance of an invader towards London. The construction of these had begun before Brooke took over the Home Forces and was partly driven by civil defence authorities and the Regional Commissioner, seemingly egged on by worried civilians. They also appear to have been endorsed locally by XII Corps' formations as a tactic that made sense given their overall capability. But the notion that, in the event of an enemy advancing inland, these defensive positions across the two counties would have been manned predominantly by either the Local Defence Volunteers (later the Home Guard) or by so-called 'static' troops is shown by this study to have been unrealistic. Large numbers of 'proper' soldiers would have been necessary, thus further restricting the capability of front-line units to counter-attack an invader busy establishing a beachhead. Brooke's almost total silence about all-round defended positions down in the south-east may well be an indication of his frustration at the challenges of ensuring that offensive action at all costs was XII Corps' top priority.

With hindsight, Ironside's defence plan, providing as it did a greater balance between defending and counter-attacking provided a flexibility that Brooke's unrelenting focus upon offensive operations arguably did not. Thus, this study concludes that the notion, widely stated in the historiography, that Brooke represented a significant 'upgrade' on his short-lived predecessor seems misplaced. Few would dispute that Brooke went on to be a superb Chief of the Imperial General Staff or that, during 1941, he was gradually able to transform the capability of the Home Forces to execute combined arms warfare at the multi-corps level. But, back in the dark days of September 1940, his 'fighting doctrine' was simply too ambitious - and (as has been shown) challenging Brooke was difficult given his intimidating style and what Daniel Todman refers to as his 'refusals to give ground in debate'.⁹⁰⁰ The simple and perhaps unwelcome truth is that the more this study has examined the capability of these formations the worse the situation appears.

Thus, the numerous proclamations at the time by both the Prime Minister and the government that the Army (together with the Navy and the Air Force) was perfectly capable of repelling an invasion, are shown by this study to have been hugely optimistic. Brooke was therefore right to confide in his diary on 8 September that the situation, should an invader arrive, was precarious, even if he kept this conclusion to himself. Interestingly, he was franker about Britain's chances of repelling the Wehrmacht over a decade later when writing his memoir, *Notes on My Life*. Here, safe in the knowledge that no invasion ever took place, he felt able to admit that, 'I considered the invasion a very real threat and one for which the land forces at my disposal fell far short of what I felt was required...'⁹⁰¹ Sadly then, the defects in the British Army that had been exposed so cruelly in Norway and then in France were a long way from being resolved by the time the invasion crisis peaked. Whether Germany military intelligence was fully aware of just how poor the British Army's capability was to repel a serious invasion attempt in late September 1940 would probably warrant a doctoral study of its own.

⁹⁰⁰ Todman, *Britain's War*, p. 150.

⁹⁰¹ LHMA, Alanbrooke: 5/2/16, 'Notes on my Life', Volume IV, Home Forces 1940 to 1941, dated 1954, p. 236.

Appendix I

The Order of Battle of XII Corps and the GHQ Reserve by late September 1940⁹⁰²

XII Corps

1st (London) Division – (HQ Eastwell Park, Kent)

1st London Infantry Brigade - (East of Canterbury)

8th (City of London Regiment) Royal Fusiliers (Herne Bay)

9th (City of London Regiment) Royal Fusiliers (Sturry)

1st London Irish Rifles (Hernhill)

2nd London Infantry Brigade - (North of Folkestone and Hythe)

1st London Scottish Regiment (Bridge)

1st London Rifle Brigade (Lyminge)

1st Queen's Westminster Rifles (Shepardswell)

35th Infantry Brigade (Faversham and Sheppey)

2/5th Queen's Royal Regiment of West Surrey (Kennington)

2/6th Queen's Royal Regiment of West Surrey (Sheppey, Minster)

2/7th Queen's Royal Regiment of West Surrey (Ospringe)

198th Independent Infantry Brigade (Sarre)

8th King's Regiment (Ramsgate)

6th Border Regiment (St Nicholas at Wade)

7th Border Regiment (Margate)

⁹⁰² This Order of Battle covers only infantry and armoured formations and their location. It does not include units of field artillery, anti-tank guns, anti-aircraft guns or machine gun battalions.

Dover Garrison (HQ: Dover Castle)

- 9th Green Howards (Kearsney)
- 15th Royal Fusiliers (Pioneer)
- 5 Commando (St Margarets Bay)
- 50th Royal West Kent Regiment (Lydden)

45th (West Country) Infantry Division (HQ Hawkhurst)

134th Infantry Brigade (Devonshire Brigade) (Mountfield)

- 6th Devonshire Regiment (Battle and Hastings)
- 8th Devonshire Regiment (Bexhill/Norman's Bay)
- 1st Royal Irish Fusiliers, (Rye/Winchelsea/Camber Sands)

135th Infantry Brigade (Ham Street)

- 5th Somerset Light Infantry (Lydd/ Dungeness)
- 6th Somerset Light Infantry (Dymchurch)
- 7th Somerset Light Infantry (New Romney/Littlestone)

136th Infantry Brigade (Upper Dicker)

- 9th Devonshire Regiment (Eastbourne/ Birling Gap/Polegate)
- 4th Duke of Cornwall's Light Infantry (Pevensey/Langlely Point)
- 5th Duke of Cornwall's Light Infantry (Denton/Bishopstone/ Newhaven Beach)

XII Corps Reserves; 'Milforce' – (HQ Eastwell Park)

2nd New Zealand Infantry Division (Maidstone area)

5th Infantry Brigade (Maidstone)

21st Auckland Battalion

22nd Wellington Battalion

23rd Canterbury-Otago Battalion

7th Infantry Brigade (Faversham)

28th Maori Battalion

29th Battalion

5 Royal Tank Regiment, (cruiser tanks, Ham Street)

8 Royal Tank Regiment (infantry tanks, Ashford area)

XII Corps Reserves; Other Formations

29th Independent Infantry Brigade (HQ: Staplefield)

1st Royal Scots Fusiliers (Haywards Heath)

2nd East Lancashire Regiment (Maresfield)

2nd Royal Welch Fusiliers (Horsham)

2nd South Lancashire Regiment (Wynch Cross)

31st Infantry Brigade (HQ Tenterten)

1st The Royal Ulster Rifles

2nd Battalion, South Staffordshire Regiment (Bethersden)

2nd Battalion, Oxford and Buckinghamshire Light Infantry (Wittersham)

General Headquarters Reserve

VII Corps (HQ: Leatherhead)

1st Armoured Division (HQ in Dorking)

2 Armoured Brigade (Originally in 2 Armoured Division, but transferred to 1 Armoured Division at end September 1940)

2nd Dragoon Guards, (Queen's Bays) (cruiser tanks, Warminster)

9th Queen's Royal Lancers (light tanks, Warminster)

10th Royal Hussars, (light tanks, Warminster)

20 Armoured Brigade (armoured cars)

1 Canadian Infantry Division ⁹⁰³ (HQ: Reigate)

1st Canadian Brigade (HQ: Horley)

Royal Canadian Regiment

48 Highlanders of Canada Regiment

Hastings and Prince Edward Regiment

2nd Canadian Brigade (HQ: Westerham)

Princess Patricia's Canadian Light Infantry

Seaforth Highlanders

Edmonton Regiment

3rd Canadian Brigade (HQ: Leatherhead)

Royal 22 East Regiment

West Nova Scotia Regiment

Carleton and York Regiment

Royal Montreal Regiment

⁹⁰³ 2 Canadian Infantry Division only arrived in the UK in September 1940 and was therefore not yet operational

1 Army Tank Brigade (HQ: Betchworth)

4 Royal Tank Regiment (infantry tanks, East Grinstead)

44 Royal Tank Regiment (infantry tanks, East Grinstead)

IV Corps (HQ: Chesham)

2nd Armoured Division (Cambridge area)

1st Armoured Brigade – (Saffron Waldon, then Newmarket)

1st King's Dragoon Guards (light tanks, Sketchworth)

4th Queen's Own Hussars, (light tanks)

3 Royal Tank Regiment, (cruiser tanks, Cambridge)

42nd (East Lancashire) Division

125th Infantry Brigade, (HQ: Newbury)

1st Border Regiment (Kingsclere)

5th Lancashire Fusiliers (Newbury)

6th Lancashire Fusiliers (Highclere)

126 Infantry Brigade (HQ: Taplow)

1st East Lancashire Regiment (Henley)

5th Kings Own Regiment (Maidenhead)

5th Border Regiment (Bisham)

127th Infantry Brigade (HQ: Wheatley)

1st Highland Light Infantry (Great Milton)

4th East Lancashire Regiment (Headington)

5th Manchester Regiment (Holton)

43rd (Wessex) Division – (HQ at Ware/Watton)

128th Infantry Brigade (HQ: Hitchin)

4th Hampshire Regiment

2/4th Hampshire Regiment

5th Hampshire regiment

129 Infantry Brigade (Newport, Essex)

4th Somerset Light Infantry

4th Wiltshire Regiment

5th Wiltshire Regiment

130 Infantry Brigade (HQ: Harpenden)

7th Battalion, Hampshire Regiment

4th Battalion, Dorset Regiment (Berkhampstead/Hatfield Forest)

5th Battalion, Dorset regiment (St Albans)

Further Reserves: GHQ Reserve Southern Command

21st Army Tank Brigade (HQ: West Lavington,)

42 Royal Tank Regiment (infantry tanks)

48 Royal Tank Regiment (infantry tanks)

The Australian Imperial Force (HQ: Tidworth).

18th Infantry Brigade (Lobscombe Corner)

2/9th Queensland Battalion

2/10th South Australia Battalion

2/12th Queensland/Tasmania Battalion

25th Infantry Brigade (Tidworth)

70th Queensland Battalion

71st Victoria Battalion

72nd New South Wales Battalion

3rd Infantry Division (HQ: Bridgewater)

7th (Guards) Brigade (HQ: Frome)

1st Grenadier Guards

2nd Grenadier Guards

1st Coldstream Guards

8th Infantry Brigade (HQ: Blagdon)

1st Suffolk Regiment

2nd East Yorkshire Regiment

4nd Royal Berkshire Regiment

9th Infantry Brigade (HQ: Tiverton)

2nd Lincolnshire Regiment

1st King's Own Scottish Borderers

2nd Royal Ulster Rifles

Appendix II

Equipment levels presented by Churchill in *Their Finest Hour*, for key infantry formations within XII Corps and the GHQ Reserve as of 7 September 1940 – expressed as a percentage of total equipment establishment.⁹⁰⁴

(Establishment per Division)	Light M.G.'s (698)	Anti-Tank Guns (48)	Field Guns (72)	Carriers (96)	Mortars (126)
XII Corps					
1 (London) Div	80%	25%	80%	75%	75%
45 (West Country) Div	90%	20%	80%	75%	75%
2 New Zealand Div	50%	25%	30%	75%	50%
29 Independent Bde	40%	25%	30%	40%	50%
31 Independent Bde	30%	25%	30%	40%	30%
GHQ Reserve					
1 Canadian Div	100%	100%	100%	100%	100%
42 (East Lancs) Div	40%	25%	50%	60%	60%
43 (Wessex) Div	100%	100%	100%	100%	100%
3 Div	100%	100%	90%	100%	100%
Australian Imperial Force	40%	10%	25%	40%	30%

⁹⁰⁴ Source: Sir Winston Churchill, *The Second World War: Volume II, Their Finest Hour*, (London: Cassell and Co., 1949), State of Readiness – Infantry Divisions, as of 7 September 1940, p. 243.

Appendix III

Number of 'Modern' Tanks by mid-September 1940⁹⁰⁵

1 Army Tank Brigade (East Grinstead)

4 RTR	50 Mk II (Matilda) infantry tanks. These went to Egypt in November 1940
44 RTR	33 Mk II (Matilda) infantry tanks. (44 RTR joined from 21 Army Tank Brigade on 16 September)
8 RTR	23 MK II (Matilda) infantry tanks. (Attached to Milforce in Kent on 6 September)

21 Army Tank Brigade (West Lavington)

42 RTR	34 Mk II (Matilda) infantry tanks and medium tanks
48 RTR	52 MK III (Valentine) infantry tanks

1 Armoured Division (HQ in Dorking)

2 Armoured Brigade	(In 1 Armoured Division by end of September 1940)
2nd Dragoon Guards	50 cruiser tanks
10th Royal Hussars	No tanks - lost its A13's cruiser tanks in France and was re-equipping.
9th Lancers	No tanks and no MK III (Valentine) infantry tanks until October 1940

⁹⁰⁵ 'Modern' tanks defined as; Mk II (Matilda) infantry tanks, Mk III (Valentine) infantry tanks or A9 and A13 cruiser tanks. Tank numbers quoted are taken from Appendix 12 of Newbold, 'Planning and Preparations to Resist Invasion on Land', p. 424.

3 Armoured Brigade

5 RTR 52 cruiser tanks. (Re-equipped with A9 and A13 cruiser tanks in July and August after France. Dorking - then sent briefly to Sussex/Kent in early September)

2 Armoured Division (HQ: Cambridge)

1 Armoured Brigade

3 RTR 52 cruiser tanks in Cambridge (having re-equipped following losses at Calais)

Total 'modern' tanks 346⁹⁰⁶

⁹⁰⁶ The numbers above are 'net' of the 100 'modern' tanks sent to Egypt in August 1940. The above figures also exclude the (obsolete) 27 Mk I Infantry tanks and the 273 Vickers Mk VI light tanks listed in; TNA, CAB 70/2, War Cabinet: Defence Committee (Supply), report entitled; *Return of Tanks in the Hands of Troops in the UK on 15 September 1940*, compiled by E. Jacob, Secretary to the Committee.

Bibliography

A: PRIMARY SOURCES, UNPUBLISHED

(i) Official Documents

London, The National Archives (TNA)

Cabinet Office

CAB 21/1106	Home Defence Executive Committee, 1940 to 1944.
CAB 66/8/20	War Cabinet conclusions, 17 August 1940
CAB 66/9/8	War Cabinet conclusions, 10 September 1940
CAB 66/9/9	War Cabinet conclusions, 11 September 1940
CAB 69/1/5	War Cabinet: Defence (Operations) Committee, Minutes for; 14 June – 19 July
CAB 69/1/7	War Cabinet: Defence (Operations) Committee, Minutes for; 13 August – 21 August
CAB 69/1/8	War Cabinet: Defence (Operations) Committee, Minutes for; 23 August – 21 August – 21 October
CAB 70/2	War Cabinet: Defence Committee (Supply). Minutes from June to December 1940 (Papers 1 to 106)
CAB 79/5/20	Chiefs of Staff Committee, 26 June 1940
CAB 79/5/21	Chief of Staff's Committee, 26 June 1940
CAB 79/5/30	Chief of Staff's Committee, 3 July 1940
CAB 79/5/35	Chiefs of Staff Committee, 5 July 1940.
CAB 79/5/52	Chiefs of Staff Committee, 18 July 1940

CAB 79/5/72	Chiefs of Staff Committee, 5 August 1940
CAB 79/6/5	Chief of Staff's Committee, 8 August 1940
CAB 79/6/10	Chief of Staff's Committee, 12 August 1940
CAB 79/6/14	Chiefs of Staff Committee: 14 August 1940
CAB 79/6/30	Chiefs of Staff Committee: 26 August 1940
CAB 79/6/40	Chiefs of Staff Committee: September 1940
CAB 79/6/43	Chiefs of Staff Committee, 3 September 1940
CAB 79/6/50	Chiefs of Staff Committee, 7 September 1940
CAB 79/6/54	Chiefs of Staff Committee, 10 September 1940
CAB 79/8/36	Chiefs of Staff Committee, 23 December 1940
CAB 80/13	Chiefs of Staff Committee, Memoranda No's 451 to 500.
CAB 80/16	Chiefs of Staff Committee, Memoranda Nos. 601 – 650. August 1940.
CAB 80/17	Chiefs of Staff Committee, Memoranda Nos. 651 – 700.
CAB 80/18	Chiefs of Staff Committee, Memoranda Nos. 701 -750
CAB 80/19	Chiefs of Staff Committee, Memoranda Nos. 751-800
CAB 80/19/14	Weekly Resume (No.55), September 12 – September 19 1940
CAB 80/19/43	Weekly Resume (No.56), September 19 – September 26 1940
CAB 84/1514	Invasion of the UK: Directive to C in C Home Forces (June 1940)
CAB 101/347	German military preparations for Operation Sea Lion; German estimate of the British Army, July to December 1940
CAB 120/438	Home Defence – Military Invasion
CAB 106/220	Final Report of the Bartholomew Committee on lessons to be learnt from the operations in Flanders. (1940)

War Office

Army Council

- WO 163/65 Meetings 1-50 (September to December 1939)
- WO 163/66 Meetings 51-87 (January to June 1940)
- WO 163/51 Minutes of the 12th to the 19th meetings of The Army Council – held during 1942
- WO 216/79 Notes on Action to Secure Better Co-operation Between Bomber Command and the Home Forces. June 1941.
- WO 216/116 Report by Lt.-General J. Marshall-Cornwall, on operations of the BEF from 1 to 18 June 1940.

Home Forces Command

- WO166/1 Home Forces GHQ, September 1939 to December 1940
- WO 166/3 Home Forces, General Headquarters (Intelligence) , May 1940 – December 1940
- WO 199/569 Home Defence situation, November 1940
- WO 199/1712 Southern Command, Preparations for Defence against threat of German invasion, June 1940 – May 1941
- WO 166/57 Southern Command, Command Headquarters, July 1940 – December 1940
- WO 166/58 Southern Command, Command Headquarters, Adjutant and Quartermaster, 1939 – 1940
- WO 166/59 Southern Command, Command Headquarters, Royal Artillery, September 1939 – February 1941
- WO 166/72 Eastern Command, Headquarters, 1940
- WO 166/75 Eastern Command, Quartermaster, 1940

Home Forces Conferences

- WO 199/3056 Commander-in-Chief Home Forces conference, agenda, minutes and related papers, December 1940
- WO 199/1649 Army Commanders Conferences, Southern Command, August 1940 – October 1940
- WO 199/2469 ‘Bumper’ Lessons, Headquarters Eastern Command, 1 October 1941 – 30 November 1941

Directorate of Army Training

- WO 231/137 Military Training Pamphlet No.8.
- WO 231/142 Military Training Pamphlet No.12.
- WO 231/164 Military Training Pamphlet No.23.
- WO 231/169 Military Training Pamphlet No.23.
- WO 231/171 Military Training Pamphlet, No.23
- WO231/241 Army Training Memorandum No.25
- WO 231/249 Army Training Memorandum (No.33), June 1940
- WO 231/250 Army Training Memorandum (No.34), July 1940
- WO 231/252 Army Training Memorandum (No.36), September 1940
- WO 231/281 Army Training Instruction (No.2), , March 1941
- WO 277/12 Manpower Problems, Second World War, 1939-1945, Army, The War Office, 1949.

Machine Gun Battalions

- WO 167/791 2 Middlesex Regiment (Duke of Cambridges's Own), 1 September 1939 - 30 June 1940
- WO 166/4460 2 Middlesex Regiment (Duke of Cambridges's Own), 1 July 1940 - 31 December 1941
- WO 167/792 7th Middlesex Regiment (Duke of Cambridges's Own), 1 January 1940 - 30 June 1940
- WO 167/793 8th Middlesex Regiment (Duke of Cambridges's Own), 1 March 1940 – 30 June 1940
- WO 167/759 1st Princess Louise's Kensington Regiment, 1 April 1940 – 30 June 1940
- WO 166/4350 1st Princess Louise's Kensington Regiment, 1939 - 1940
- WO 166/4201 7th Devonshire Regiment - Attached to 45(West Country) Division, 1 September 1939 – 31 October 1941

XII Corps

- WO 166/344 XII Corps, General Staff, August 1940 - January 1941
- WO 166/345 XII Corps, Adjutant and Quartermaster, June 1940 - January 1941
- WO 166/1214 Areas: Home Counties, General, 1939 - 1940
- WO 199/544 Keeps and fortified villages, nodal points and anti-tank Islands, 1 September 1940 – 31 October 1942
- WO 166/1072 219 Infantry Brigade, Headquarters, 1 October 1940 – 31 December 1941
- WO 166/482 38 (Welsh) Division, General Staff, 1 September 1939 to 31 December 1941
- WO 199/1714 Construction of GHQ zones; anti-tank islands and centres of resistance, Headquarters Southern command, 1 October 1940 – 31 May 1941
- WO 199/1801 Works Services: Construction of GHQ Zones, defence lines, roadblocks, etc., Headquarters Southern Command, 1 July 1940 – 31 October 1940

WO 199/567 Notes prepared for staff college, General Headquarters, 1 September 1940 to 30 April 1942

1st (London) Division⁹⁰⁷

WO 166/719 1st (London Division), Signals, 1 August 1939 - 31 December 1940

WO 166/707 1st (London) Division, General Staff, 1 March 1940 - 31 April 1940

WO 166/708 1st (London) Division, General Staff, May 1940

WO 166/709 1st (London) Division, General Staff, June 1940

WO 166/710 1st (London) Division, General Staff, 1 July 1940 - 30 September 1940

WO 166/711 1st (London) Division, General Staff, 1 October 1940 - 31 December 1940

WO 166/714 1st (London) Division, Adjutant and Quartermaster, 1 November 1939 - 31 December 1940

WO 166/1040 1 London Infantry Brigade, Headquarters, 1 June 1940 – 31 December 1940

WO 166/4534 9th Royal Fusiliers (City of London Regiment), 1 September 1939 - 31 December 1940

WO 166/4532 8th Royal Fusiliers (City of London Regiment), 1 July 1940 – 31 December 1941

WO 166/1042 2 London Infantry Brigade, Headquarters, 1 August 1939 - 31 November 1940)

WO 166/4510 1st Queen's Westminster Rifles, 1 September 1939 - 31 November 1940

WO 166/4514 1st London Rifles⁹⁰⁸

WO 166/4439 1st London Scottish, 1940

WO 166/949 35 Infantry Brigade, Headquarters, 1 July 1940 – 31 November 1940

WO 166/4496 2/5th Queen's Royal Regiment (West Surrey), 1939 - 1941

⁹⁰⁷ War Office files for 1 (London) Division in 1940, use the Division's later name of 56 Division.

⁹⁰⁸ This file is listed as '7 Rifle Brigade (Prince Consort's Own)', but contains the war diary of 1st Battalion, London Rifles.

WO 166/4499 2/6th Queen's Royal Regiment (West Surrey), 1939 - 1941

WO 166/4502 2/7th Queen's Royal Regiment (West Surrey), 1939 - 1941

198 Independent Infantry Brigade

WO 166/4328 7th Battalion, The Hampshire Regiment, 1 August 1939 - 31 December 1941

WO 166/4156 6th Battalion, The Border Regiment, 1 August 1939 – 31 December 1941

WO 166/4157 7th Battalion, The Border Regiment, 1 August 1939 – 31 December 1941

45th (West Country) Division

WO 166/536 45th Division: General Staff, 1 August 1940 – 31 December 1941

WO 166/541 45th Division: Signals, 1 September 1939 – 31 December 1941

WO 166/539 45th Division: Commander Royal Artillery, 1939 - 1941

WO 166/540 45th Division: Commander Royal Engineers, 1 August 1939 – 31 December 1941

WO 166/538 45th Division: Adjutant and Quartermaster, 1940 - 1941

WO 166/989 134 Infantry Brigade: Headquarters, 1 August 1939 – 31 December 1941

WO166/4200 6th Battalion, Devonshire Regiment, 1 September 1939 – 31 December 1941

WO 166/4202 8th Battalion, Devonshire Regiment, 1 September 1939 – 31 January 1942

WO 166/4553 1st Battalion, Royal Irish Fusiliers (Princess Victoria's), 1 June 1940 – 31 December 1941

WO 166/990 135 Infantry Brigade, Headquarters, 1 September 1939 – 31 December 1940

WO 166/4656 5th Battalion, Somerset Light Infantry, 1 September 1939 to 31 December 1941

WO 166/4657 6th Battalion, Somerset Light Infantry, 1 August 1939 – 31 December 1941

- WO 166/4658 7th Battalion, Somerset Light Infantry, 1 August 1939 – 31 December 1941
- WO 166/992 136 Infantry Brigade, Headquarters, 1 August 1939 – 31 December 1941
- WO 166/4203 9th Battalion, Devonshire Regiment, 1 September 1939 – 31 December 1941
- WO 166/4215 4th Battalion, Duke of Cornwall's Light Infantry, 1 September 1930 – 31 December 1941
- WO 166/4216 5th Battalion, Duke of Cornwall's Light Infantry, 1 August 1939 – 31 December 1941
- WO 166/2401 7th Battalion, Devonshire Regiment (Machine Gun battalion), 1 September 1930 – 31 December 1941

31 Independent Brigade Group

- WO166/942 31st Independent Brigade Group: Headquarters, 1 July 1940 – 31 December 1941
- WO 166/4606 1st Battalion, Royal Ulster Rifles, 1 August 1940 – 31 December 1941.
- WO 166/4685 2nd Battalion, South Staffordshire Regiment, July 1940 to December 1941
- WO 166/4153 1st Battalion, Border Regiment, 1 June 1940 – 31 December 1941
- WO 166/1686 223 Anti-Tank Battery, Royal Artillery, 1 July 1940 – 31 December 1941

29 Independent Brigade

- WO 166/4625 2nd Battalion, Royal Welch Fusiliers, 1 August 1940 – 31 December 1941
- WO 166/4582 1st Battalion Royal Scots Fusiliers, 1 July 1940 – 31 December 1941
- WO 166/4678 2nd Battalion, South Lancashire Regiment, 1 May 1940 – 31 December 1941

General Headquarters Reserve

VII Corps

WO 179/11 Headquarters, Canadian Corps: General Staff, 1 July – 31 December 1940

Canadian 1 Division

WO 179/37 1 Canadian Division, Headquarters: 1 June – 31 August 1940

WO 179/112 1 Infantry Brigade, Headquarters, 1 December 1939 – 31 December 1940

WO 179/116 Royal Canadian Regiment, 1 August 1939 – 31 December 1940

WO 179/117 48 Highlanders of Canada Regiment, 1 December 1939 – 31 December 1940

WO 179/118 Hastings and Prince Edward Regiment, 1 December 1939 – 31 December 1940

WO 179/119 2 Infantry Brigade, Headquarters, 1 December 1939 – 31 December 1940

WO 179/122 Princess Patricia's Canadian Light Infantry, 1 December 1939 – 31 December 1940

WO 179/123 Seaforth Highlanders, 1 December 1939 – 31 December 1940

WO 179/124 Edmonton Regiment, 1 December 1939 – 31 December 1940

WO 179/126 3 Infantry Brigade, Headquarters, 1 November 1939 – 31 December 1940

WO 179/130 West Nova Scotia Regiment, 1 December 1939 – 31 December 1940

WO179/131 Carleton and York Regiment, 1 August 1939 – 31 December 1940

WO 179/132 Royal Montreal Regiment, 1 September 1939 – 31 December 1940

1 Armoured Division

- WO 166/797 1 Armoured Division, General Staff, 1 June. 1940 – 31 June 1941
- WO 166/798 1 Armoured Division, Adjutant and Quartermaster, 1939-1941
- WO 32/9392 Operations of 1 Armoured Division in France, 1940
- WO 204/8236 History of 1 Armoured Division, 1940-1941
- WO 169/3337 2 Armoured Brigade HQ – September 1940 - 1941
- WO166/1361 Royal Armoured Corps: 9th Queen's Royal Lancers, 1939 - 1941
- WO167/445 2nd Dragoon Guards, (Queen's Bays), France, 1 May 1940 – 30 June 1940
- WO166/1369 Royal Armoured Corps: 2nd Dragoon Guards (The Queen's Bays), 1939 - 1941
- WO 167/446 10th Royal Hussars, (France), May 1940
- WO 166/1371 Royal Armoured Corps: 10th Royal Hussars, 1 September 1939 – 31 October 1941
- WO 167/421 3 Armoured Brigade, Headquarters, (France), May 1940
- WO 166/1092 3 Armoured Brigade, Headquarters, 1939 – 1940
- WO 167/449 5th Royal Tank Regiment (France), May 1940
- WO 166/1406 Royal Armoured Corps: 5 Royal Tank Regiment, 1939-1940

1st Army Tank Brigade

- WO 166/ 1124 1st Army Tank Brigade, Headquarters, 1939 - 1941
- WO 167/414 1st Army Tank Brigade, Headquarters, (France), 1 April 1940 – 30 June 1940
- WO 166/1417 Royal Armoured Corps: 44 Royal Tank Regiment, 1 September 1939 – 31 March 1941
- WO 166/1408 Royal Armoured Corps: 8 Royal Tank Regiment, 1 September 1939 – 28 February 1941

WO 166/1405 Royal Armoured Corps: 4 Royal Tank Regiment, 1 July 1940 – 30 November 1940

IV Corps

WO 166/230 IV Corps, General Staff, 1 February 1940 – 31 November 1941

WO 166/231 IV Corps, Intelligence, 1 June 1940 – 31 March 1941

WO 166/232 IV Corps, Adjutant and Quartermaster, 1940 - 1941

42 (East Lancashire) Division

WO 167/266 42 (East Lancashire) Division: General Staff, June 1940

WO 166/494 42 (East Lancashire) Division: General Staff, 1939 - 1940

WO 166/496 42 (East Lancashire) Division: Adjutant and Quartermaster, 1939-1941

WO 166/975 125 Infantry Brigade: Headquarters, 1939 - 1941

WO 166/4407 5th Battalion, Lancashire Fusiliers, 1939 - 1941

WO 166/4409 6th Battalion, Lancashire Fusiliers, 1939 - 1941

WO 167/780 6th Battalion, Lancashire Fusiliers, France, 1 March 1940 – 31 May 1940

WO 166/4153 1st Battalion, Border Regiment, 1 June 1940 – 31 December 1941

WO 166/976 126 Infantry Brigade: Headquarters, 1939 – 1941

WO 167/715 5th Battalion, Border Regiment, France, 1 April 1940 – 30 June 1940

WO 166/4155 5th Battalion, Border Regiment, 1939 – 1941

WO 167/782 1st Battalion, East Lancashire Regiment, France, 1 April 1940 – 30 June 1940

WO 166/4247 1st Battalion, East Lancashire Regiment, 1939 - 1941

WO 166/977 127 Infantry Brigade: Headquarters, 1939 – 1941

WO 166/4249 4th East Lancashire Regiment, 1939 – 1941

WO 166/4451 5th Manchester Regiment, 1939 – 1941

WO 166/1629 56th Anti-Tank Regiment, 1939 - 1941

43 (Wessex) Division

WO 166/508 43 (Wessex) Division: General Staff, 1939-1940

WO 166/510 43 (Wessex) Division: Adjutant and Quartermaster. 1 August 1939 – 31 December 1941

WO 166/978 128 Infantry Brigade: Headquarters, 1 September 1939 – 31 December 1941

WO 166/4325 1/4th Battalion, Hampshire Regiment, 1 September 1939 – 31 December 1940

WO 166/4327 5th Battalion, Hampshire Regiment, 1 November 1939 – 31 December 1940

WO 166/4326 2/4th Battalion, Hampshire Regiment, 1 November 1939 – 31 December 1940

WO 166/979 129 Infantry Brigade: Headquarters, 1 November 1939 – 31 December 1941

WO 166/4655 4th Battalion, Somerset Light Infantry, 1 September 1939 – 31 December 1941

WO 166/4738 4th Battalion, Wiltshire Regiment, 1 September 1939 – 31 December 1941

WO 166/4739 5th Battalion, Wiltshire Regiment, 1 November 1939 – 31 December 1941

WO 166/981 130 Infantry Brigade Headquarters, 1 August 1939 – 31 December 1941

WO 166/4328 7th Battalion, Hampshire Regiment, 1 August 1939 – 31 December 1941

WO 166/4208 4th Battalion, Dorset Regiment, 1 September 1939 – 31 December 1940

WO 166/4209 5th Battalion, Dorset Regiment, 1 May 1940 – 31 December 1941

2 Armoured Division

- WO 166/814 2 Armoured Division: General Staff, 1 June 1940 – 31 October 1940
- WO 166/818 2 Armoured Division: Signals, 1 September 1939 - 31 October 1940
- WO 166/815 2 Armoured Division: Adjutant and Quartermaster, 1 December 1939 – 31 October 1940
- WO 166/1084 1 Armoured Brigade: Headquarters, 1 September 1939 – 31 October 1940
- WO 166/1149 1 Armoured Reconnaissance Brigade, 1 July 1940 – 31 October 1940
- WO 166/1379 1st King's Dragoon Guards, 1 September 1939 – 31 October 1940
- WO 166/1370 4th Queen's Own Hussars, 1 September 1939 – 31 October 1940

GHQ 'Deeper Reserves'

21st Army Tank Brigade

- WO 166/1127 21 Army Tank Brigade: Headquarters, 1 September 1939 – 31 December 1940
- WO 166/1415 Royal Armoured Corps: 42 Royal Tank Regiment, 1 September 1939 – 31 March 1941.
- WO 166/1421 Royal Armoured Corps: 48 Royal Tank Regiment, 1 September 1939 – 31 December 1941.

3 Division (7 Guards Brigade only)

- WO 166/909 7 (Guards) Brigade: Headquarters, 1 July 1940 – 31 August 1940
- WO167/700 1st Battalion, Grenadier Guards, France, 1 September 1939 – 30 June 1940
- WO 167/701 2nd Battalion, Grenadier Guards, France, 1 September 1939 – 30 June 1940
- WO 167/698 1st Battalion, Coldstream Guards, 1 September 1939 – 30 June 1940
- WO 166/4097 1st Battalion, Grenadier Guards, 1 July 1940 – 31 December 1940
- WO166/4099 2nd Grenadier Guards, 1 July 1940 – 31 December 1941

WO 166/4091 1st Battalion, Coldstream Guards, 1 July 1940 – 31 December 1941

WO 166/4460 2nd Battalion, Middlesex Regiment, , 1 July 1940 – 31 December 1941

Other Miscellaneous Files

PREM 4/3/6 Appointment of Chief of Air Staff, 1 August 1940 – 30 November 1940

MH 79/483 Civil Defence: Nodal ‘Tank Islands’ and Other Defence Points.

WO 106/1962 First report by General Auchinleck, 1 May 1940 – 30 June 1940

WO 106/1775 Final Report of Bartholomew Committee – Lessons of Flanders Operations 1940.

WO 199/314 Reorganisation of Home Forces, Winter1940-Spring 1941, 1 December 1940 – 28 February 194

WO 199/545 Co-operation with Civil Authorities in Nodal Points’ May 1941 to Feb 1942

WO 199/641 Evacuation of Non-Essential Personnel at Coastal Towns

WO 199/1650 Army Commanders’ Conference, Southern Command, 1 October 1940 – 30 April 1941

WO 199/1712 Preparations for defence against the threat of German invasion (Headquarters Southern Command), 1 June 1940 – 31 May 1941

WO 167/804 1st (Buckinghamshire) Battalion, Oxfordshire and Buckinghamshire Light Infantry, 1 January 1940 – 31 May 1940

WO 167/806 4th Battalion, Oxfordshire and Buckinghamshire Light Infantry, 1 January 1940 – 31 May 1940

WO 167/805 1st Battalion, Oxfordshire and Buckinghamshire Light Infantry, 1 January 1940 – 31 May 1940

WO 166/2716, Anti-Aircraft Command: 43 Light Anti-Aircraft Regiment. 1 October 1939 – 31 December 1941

WO 73/146 Office of the Commander-in-Chief War Office: Distribution of Army monthly returns, 1 July 1940 – 30 September 1940

- WO 106/1962 First Report on Norway by Lieutenant-General Auchinleck, 1 May 1940 – 30 June 1940
- WO 216/117 Lt-General Sir T. Pile, Commander-in-Chief, Anti-Aircraft Command: demi-official correspondence, 1 August 1940 to 28 February 1944.
- WO 231/1 Notes on Tactical and Administrative lessons of the Campaign in Norway, June 1940
- WO 277/7 War Office publication: The Second World War, Discipline, 1939 - 1945

Files relating to Tactical Air Support

- WO 106/1596 Air Policy: cooperation between Army and RAF, 1 December 1939 – 30 June 1940
- WO 106/5151 Close support bombing and tactical reconnaissance for the Army, 1 December 1939 – 31 December 1940
- WO 106/5162 Development of close support action by bombers: report on trials in Northern Ireland, 1 August 1940 – 30 April 1941
- WO 193/678 Air requirements of the army, 1 September 1939 – 30 November 1945
- WO 199/1764 Headquarters Southern Command, Allocation of Army Cooperation Squadrons, 1 June 1940 – 31 January 1941
- WO 233/60 Draft report on air support for the Army 1939-1945 (dated 1945)
- WO 106/1754 Co-operation between the Royal Air Force and B.E.F., May 1940

Air Ministry

Files relating to Tactical Air Support

- AIR 2/2896 France and Low Countries: Air Attack in Direct Support of the Field Force, 1939-1940
- AIR 2/7210 Home Defence: Air action in event of sea-borne invasion of UK. 1940.
- AIR 2/7218 Employment of Bomber Squadrons in support of Land Forces in the event of an invasion of Great Britain, 1940

- AIR 14/181 Dive Bombing Policy, 1940
- AIR 14/298 Annual Report on the state of Bomber Command and its readiness for war, 1939
- AIR 14/674 Directives to No.1. Bomber Group, Vol. 1, July 1940
- AIR 20/327 Army Co-Operation Command, Order of Battle, 1939 – 1943
- AIR 20/2173 Army air-support exercises, 1 July 1941 – 31 October 1941
- AIR 20/4301 Royal Air Force and Army Cooperation (papers accumulated by the Air Historical Branch), 1 October 1940 – 31 December 1944
- AIR 25/1 Operations Record Books: No.1. Group, 1 May 1936 – 31 December 1943
- AIR 25/4 Operations Record Books: No.1.Group, Appendices, 1 July 1940 – 31 December 1940
- AIR 27/681 Operations Record Books, No. 82 Squadron (Blenheims)
- AIR 27/841 Operations Records Books, No.107 Squadron (Blenheims)
- AIR 35/255 Report on British Air Forces in France, 1939 - 1940
- AIR 39/80 Air aspect of ‘Bumper’ exercise: Report by Air Officer Commanding-in-Chief, October 1941.
- AIR 39/139 Close Support by bomber and fighter aircraft: policy, 1 November 1939 – 30 November 1940
- AIR 39/139 Close support by bomber and fighter aircraft, November 1939 to November 1940.

New Zealand, Victoria University of Wellington Library

The Official History of New Zealand in the Second World War 1939-1945;
nzetc.victoria.ac.nz,

2nd New Zealand Expeditionary Force:

21st, 22nd and 23rd Battalions, 5 Brigade

28th and 29th Battalions, 7 Brigade

(ii) Private Papers and Sound Archives

Cambridge, Churchill Archives Centre (CAA)

Private Papers of Air Vice Marshal S. Bufton, BUFT 3/1

Private Papers of Sir Auckland Geddes, GEDD 7/2 1010

Private Papers of Major P.G. Hampton, HPTN 1

Private papers of Admiral Sir Bertram Ramsey, RMSY 8/13

Oxford, Christchurch College Oxford, (CCD)

Portal papers, Folder 1/File1

London, Imperial War Museum (IWM) Department of Documents ⁹⁰⁹

Major P. Barrington, No. 12628

Captain A. Bell Macdonald, No. 10786

Major Geoffrey Bird, No. 27241

Major W.G. Blaxland, No. 4823

Lieutenant-Colonel Bond, No. 4974

Colonel Charles Carrington, No. 20614

Colonel Chavasse, No. 7936

Miss M. Cooke, No. 17125

Captain Cowles, No. 2251

Major G. M. Dyas, No. 22279

Colonel P.B. Earl, No. 19519

⁹⁰⁹ The majority of these individuals served either in the British Expeditionary Force in May 1940, and /or in XII Corps and the GHQ Reserve in the summer of 1940.

Lieutenant-Colonel N. Field, No. 8409

Major Howorth, No. 2924

Major G Jackson, No. 2239

Brigadier Kenyon, No. 3868

Lieutenant R. Holbrow, No. 15631

Colonel J Horsfall-Coldwell, No. 15756

Lieutenant-Colonel J. Houghton-Brown, No. 16118

Major McSwinney, No.7004

Private J. E. Newton, No. 27204

Lieutenant-General Osbourne, No. 785

Captain Patterson, No. 13225

Major G. Perry, No. 15500

Captain J.R. Strick, No. 16233

Brigadier Sutton, No 13939

Private Matthew Turnbull, No. 20724

London, Imperial War Museum (IWM) Sound Archive ⁹¹⁰

Royal Air Force ⁹¹¹

Pilot Officer Harold Bird-Wilson, No. 10093

Sergeant Wireless Operator John Bristow, No. 6178

⁹¹⁰ Ranks stated in the Imperial War Museum Sound Archive are usually the highest achieved during an individual's military career and are thus not necessarily the rank they held in the summer of 1940.

⁹¹¹ These individuals served either in the Advanced Air Striking Force, or the Air Component, during the Battle of France and/or served in Fighter Command or Bomber Command in the summer of 1940.

NCO Observer Thomas Broom, No. 16266

Flight Lieutenant Eric Chandler, No. 11036

Pilot Officer William Collins, No. 6673

Pilot Officer Geoffrey Cornish, No. 23327

Squadron Leader Lawrence Curtiss, No. 9211

NCO Observer Leonard Fearnley, No.12303

NCO Observer Geoffrey Garside, No. 12196

Group Captain Jack Goodman, No. 16075

Pilot Officer Hugh Grant-Dalton- No. 26589

Group Captain Jack Goodman, No. 16075

Wing Commander William Gregory, No. 15145

Wing Commander Hugh Ironside, No. 13101

Pilot Officer Richard Jones, No. 20497

Pilot Officer Guy Lawrence No.11279

Pilot Officer Roderick Learoyd, No. 16346

Pilot Officer Peter Mathews, No. 10451

Flight Lieutenant Marcus Potter, No. 6715

Wing Commander Thomas Murray, No. 12805

Pilot Officer Rupert Parkhouse, No 15476

Wing Commander David Parrott, No. 13152

Wing Commander Douglas Parry, No 15354

Pilot Officer George Reid, No.17823

Wing Commander Ronald Rotherham, No. 12807

Air Vice-Marshal Frank Sinclair, No. 9818

Air Commodore Edward Sismore, No. 10988

Squadron Leader William Smith, No. 10472

Wing Commander Vivian Snell, No 21300

NCO Observer, Herbert Spiller, No 477

Sergeant Pilot Maurice Stretton, No. 3782

Army⁹¹²

Gunner John Almond, No. 16906

Captain Paul Armstrong, No. 14794

NCO Frederick Ashcroft, No. 13932

Major Anthony Austin, No. 944

Private William Avery, No. 22341

NCO Arthur Bailey, No. 13357

Private Cyril Bailey, No. 21590

NCO Raymond Baines, No. 23371

Private Thomas Beel, No. 13110

Major-General Horace Birks, No. 870

Colonel William Blain, No. 833

Lieutenant Francis Boshell, No. 15578

⁹¹² These individuals served either in the British Expeditionary Force in May 1940, and/or served in XII Corps and the GHQ Reserve in the summer of 1940.

NCO Frank Bostock, No. 19870

Major Charles Boycott, No. 18734

Major-General Humphrey Bredin, No. 12139

Brigadier Robert Bright, No. 787

Lieutenant Peter Brind, No. 13721

NCO Frank Brodie, No. 19047

Private Norman Bryant, No. 19594

NCO Victor Burton, No. 18204

Field Marshal Lord Richard Carver, No. 877

Private Bob Cassell, No. 15352

Colonel Ferdinand Octavius Cetre, No. 30134

Trooper Ernest Cheeseman, No. 18516

NCO Ronald Clack, No. 21187

Trooper Douglas Covill, No. 18023

Hilda Cripps, No. 18337

Private Leslie Crouch, No. 21102

Lieutenant Phillip Daniel, No. 19670

Lieutenant Ronald Dinnin, No. 13122

Private Francis Docketty, 4822

NCO John Douglas, No. 25211

Major Nigel Duncan, No. 829

Private Jim Eaves, No. 18739

NCO Richard Edgecombe, No. 32849

Private Reginald Elliot, No. 30140

Colonel Harold Ervine Andrews, No. 12209

Major Arthur Flint, No.899

NCO Peter Fiskwick, No. 31553

Major-General Henry Foote, No. 10812

Private John Foster, No. 27194

Private Harry Garret, No. 20521

Major-General Frederick Gordon-Hall, No. 858

Trooper Arnold Green, No. 18345

Trooper William Green, No. 18345

NCO Lawrence Greggain, No. 19530

Gunner Thomas Gregory, No. 13373

Private Lyle Hannan, No. 22908

Private Norman Harland, No. 10423

NCO John Hartle, No. 22114

Sergeant Herbert Harwood, No. 20769

Major-General Patrick Hobart, No. 857

NCO James Hogg, No. 22584

Brigadier Harry Hopthrow, No. 11581

Colonel Sir Andrew Horsburgh-Porter, No. 905

Private Eric Hutchins, No. 14880

Colonel Alan Jackson, No. 822

Private Arthur Jane, No. 22163

Brigadier Peter Jeffries, No. 9237

NCO Andrew Jones, No. 14925

Gunner Walter Jones, No. 15474

Private Leslie Kearnes, No. 6462

Private Henry Keeble, No. 20155

NCO Harry Lapidus, No. 19930

Captain George Ledger, No. 16722

Major-General Henry Liardet, No. 862

Private Fred Linnaker, No. 11750

Major Cyril Lloyd, No. 7266

Rifleman John Longstaff, No. 10382

Trooper Arnold Lupton, No. 18493

NCO James Madison, No. 20803

NCO Arthur McAlister, No. 14821

Lieutenant John McSwiney, No. 17528

Major Alan Melville, No. 12441

Lance Corporal William Millard, No. 20737

NCO Henry Miller, No. 18682

Lieutenant William Mills, No. 22685

Captain Peter Monico, No. 7176

Lieutenant John Morgan, No. 13520

NCO Arthur Morris, No. 17840

NCO Ronald Mott, No. 17731

Private Dennis Mulqueen, No. 17377

Private Tom Neary, No. 18736

NCO, Ronald Newbold, No. 20274

Private Harry Nolan, No. 17928

NCO Douglas Old, No. 23146

Private Charles Palmer, No. 16709

Lieutenant Thomas Peace, No. 18048

Brigadier Enoch Powell, No. 10044

NCO Bertram Pratten, No. 6233

NCO Frank Quelch, No. 22074

Major-General George Richards, No. 866

NCO Leslie Ridout, No. 22915

Private Frank Rogers, No. 18737

Private Douglas Rosewarn, No. 17500

Trooper Ernest Scattergood, No.10607

Sergeant George Self, No. 10413

Brigadier Smijth-Windham, No.954

Private Jim Smith, No. 18740

Private Matthew Smith, No. 6325

Gunner William Smith, No. 27452

Gunner James Sudbury, No. 12759

Guardsman George Teal, No. 1869

Captain Derek Tomlinson, No.13360

NCO William Tooke, No. 18213

Trooper Arthur Topliss, No. 12093

Sergeant Bert Tremain, No. 17356

Private George Vaughan, No. 20780

Brigadier Peter Vaux, No. 20950

Major E. Viney, No. 6806

Captain William Faure Walker, No. 6611

Private Stanley Warburton, No. 22340

Private Henry Watson, No. 17623

Major John Watson, No. 12417

Colonel William Watson, No. 988

Private Herbert Webber, No. 21012

Private Frederick Welsh, No. 16711

Private Rubin Wharmby, No. 1874

NCO Eric Wheeler, No. 21059

Gunner Robert Wigham, No. 29238

NCO Harold Wilmshurst, No. 21098

NCO Henry Willmott, No. 22666

NCO Alan Wollaston, No. 11907

NCO Eric Woods, No. 16754

NCO, Rex Yeomans, No. 27339

London, Liddell Hart Centre for Military Archives (LHCMA)

Private papers of Field Marshal Lord Alanbrooke; 4/4/1-6, 5/1, 5/2/16

Private papers of Sir Basil Liddell Hart; 11/1940/14, 11/1940/25, 11/1940/34, 11/1941/9,
11/1940/61

London, The National Army Museum Archives (NAMA)

Private papers of Lieutenant-General Sir Andrew Thorne; 3367-3494

Guildford, The Surrey History Centre (TSHC)

Records of the 2/5th Battalion, Queen's Royal West Surrey Regiment; QRWS/10/1

B: PRIMARY SOURCES PUBLISHED

(i) Published Diaries, Letters and Memoirs

Addison, Paul and Jeremy Crang, ed., *Listening to Britain – Home Intelligence Reports on Britain's Finest Hour, May to September 1940*, (London: The Bodley Head, 2010)

Bond, Brian, ed., *Chief of Staff; The Diaries of Lieutenant-General Sir Henry Pownall*, Volume One and Volume Two, (1974; Leo Cooper Ltd, London)

Brown, Becky, *Blitz Spirit, 1939–1945; Compiled by Becky Brown from the Mass Observation Archive*, (London: Hodder & Stoughton, 2020)

Bryant, Arthur, *The Turn of the Tide: Based on the War Diaries of Field Marshal Viscount Alanbrooke*, (London: Collins, 1957)

Danchev, Alex and Todman, Daniel, ed., *War Diaries 1939 – 1945, Field Marshal Lord Alanbrooke*, (London: Weidenfeld & Nicolson, 2001)

Garfield, Simon, *We Are At War – The Remarkable Diaries of Five Ordinary People in Extraordinary Times*, (London: Ebury Press: 2005)

Gillies, Midge, *Waiting for Hitler : Voices from Britain on the Brink of Invasion*, (London: Hodder and Stoughton, 2006)

Harrison, Tom and Harrison, Madge, ed., *Mass Observation, War Begins at Home*, (London: Chatto & Windus, 1940)

Ismay, Hastings, Baron, *The Memoirs of General the Lord Ismay, 1887-1965*, (London: Heinemann, 1960)

Ironside, Edmund, Sir, *Time Unguarded; the Ironside Diaries, 1937-1940*, (New York: David McKay Company, 1962).

Kennedy, Margaret, *Where Stands a Wingèd Sentry*, [first published in 1941], (Bath: Handheld Press, 2021)

Levine, Joshua, *Forgotton Voices of the Blitz and the Battle of Britain*, (London: Ebury Press, 2006)

Malcolmson, Patricia and Malcomson, Robert., ed., *A Free-Spirited Woman: the London diaries of Gladys Lamgford, 1936 -1940*, (Woodbridge: Boydell Press, 2014)

Middelboe, Penelope and Fry, Donald and Grace Christopher, ed., *We Shall Never Surrender: Wartime Diaries 1939-1945*, (London: Macmillan, 2001)

Nicolson, Nigel, ed., *Harold Nicolson, Diaries and Letters*, (London: William Collins, 1967)

Panter-Downes, Mollie, *London War Notes 1939-1945*, (London: Longman, 1972)

Woolf, Virginia, '*Diary of Virginia Woolf, Vol 5, 1936 to 1941*', (London: The Hogarth Press, 1980)

(ii) Newspapers and Journals

British Newspaper Archive, specifically:

- *Hastings and St Leonard's Observer*
- *Whitstable & Herne Bay Herald*
- *Sevenoaks Chronicle*

The Times Digital Archive

Telegraph Digital Archive

C: SECONDARY SOURCES

(i) Articles and Chapters in Books

Bond, Brian, 'Leslie Hore-Belisha at the War Office', in *Politicians and Defence: Studies in the Formulation of British Defence Policy 1845 – 1940*, ed. by Ian Beckett and John Gooch (Manchester: Manchester University Press, 1981)

Crang, Jeremy, 'The British Soldier on the Home Front: Army Morale Reports, 1940-45', in: *Time to Kill: the Soldier's Experience of War in the West, 1939-45*, ed. by Paul Addison and Angus Calder, (London: Random House, 1997)

Danchev Alex, Field-Marshal Sir John Dill, in *Churchill's Generals*, ed. by John Keegan, (London: Weidenfeld & Nicolson, 1991)

Eade, Charles, comp., *Secret Session Speeches by Winston Churchill*, (London: Cassell & Co., 1946)

Jones, Alexander, 'Never Again? The Role of the Territorial Army in the Military Plans for Expansion, (1919 – 1939)', in *How Armies Grow: The Expansion of Military Forces in the Age of Total War, 1789 – 1945*, ed. by Matthias Strohn, (Oxford: Casemate, 2019)

Mackenzie, Simon, 'The Real Dad's Army: the British Home Guard, 1940-44, in *Time to Kill: the Soldier's Experience of War in the West, 1939-1945*, ed. by Paul Addison and Angus Calder, (London: Random House, 1997)

Strachan Hew, 'The Territorial Army and National Defence', in *The British Way in Warfare: Power and the International System, 1856 -1956*, ed. by Keith Neilson and Greg Kennedy, (Farnham: Ashgate, 2010)

(ii) Articles in Journals

Alexander, Martin, 'After Dunkirk: The French Army's Performance against 'Case Red', 25 May to 25 June 1940', *War in History*, Vol.14, No. 2 (April 2007), 219-264

Boff, Jonathan, 'Combined Arms during the Hundred Days Campaign, August-November 1918', *War in History*, Vol.17, No. 4 (November 2010), 459-478

Caddick-Adams, P., 'Phoney War and "Blitzkrieg": The Territorial Army, 1939-1940,' *RUSI Journal*, Vol.143 No.2, (April 1998), 67-74

Cerdá, Néstor, 'The Road to Dunkirk: British Intelligence and the Spanish Civil War', *War in History*, Vol. 13, No. 1 (January 2006), 42-64

Connelly, Mark, and Walter Miller, 'The BEF and the Issue of Surrender in the western Front in 1940', *War in History*, (2004), 424-441

Corum, James, 'The Luftwaffe's Army Support Doctrine, 1918-1941', *The Journal of Military History*, Vol. 59, No. 1 (January 1995), 53-76

Cranston, John, 'J.F.C. Fuller and Liddell Hart: Contrasting Theories of Armour Development', No. 33, *Army History*, (Winter 1995), 11-12

Danchev, Alex, 'Waltzing with Winston – Civil – Military relations in Britain in the Second World War', *War in History*, Vol. 2, No. 2 (July 1995), 202-230

Danchev, Alex, 'Dilly-dally or having the last word; Field Marshal Sir John Dill and Winston Churchill,' *Journal of Contemporary History*, Vol.22, No.1 (January 1987), 21-44

Field, Geoffrey, 'Civilians in Uniform: Class and Politics in the British Armed Forces', *International Labour and Working Class History*, Vol.80, (2011), 121-147

French, David, 'Colonel Blimp and the British Army, British Divisional Commanders in the War Against Germany, 1939 to 1945', *The English Historical Review*, Vol.33, No. 4. (1996), 1182–1201

French, David, 'Doctrine and Organisation in the British Army, 1919 – 1932', *The Historical Journal*, Vol. 44, No. 2 (June 2001), 497-515

French, David, 'Discipline and the Death Penalty in the British Army in the War against Germany during the Second World War', *Journal of Contemporary History*, Vol. 33, No. 4, (October 2008) 538-40

Gunsberg, Jeffry, 'The Battle of Gembloux 14-15 May 1940: The "Blitzkrieg" Checked', *The Journal of Military History*, Vol. 64, No. 1, (January 2000), 97-140

Harrison Place, Tim, 'Lionel Wigram, Battle Drill and the British Army in the Second World War'. *War In History*, Vol. 7. No.4 (November 2000), pp. 442-462

Koch, Hannsjoachim, 'The Strategic Air Offensive Against Germany; The Early Phase, May – September 1940', *The Historical Journal*, Vol.34, No.1. (March 1998), 117-141

Jacobs, William, 'Air Support for the British Army 1939-1945', *Military Affairs*, Vol. 46, No.4 (December 1982), 174-182

Jones, Edgar, ' "LMF": The Use of Psychiatric Stigma in the Royal Air Force during the Second World War', *The Journal of Military History*, Vol.70, No.2 (April, 2006), 439 – 458

Philpott, William, and Alexander, Martin, 'The French and the British Field Force: Moral Support or Material Contribution', *The Journal of Military History*, Vol. 71, No. 3 (July 2007), 743-772

Pile, Sir Frederick, Lieutenant-General, 'The Anti-Aircraft Defence of the United Kingdom, from 28 July 1939 to 15 April 1945', *The London Gazette*, 18 December 1947, 5973 – 5994

Post, Gaines, 'Mad Dogs and Englishmen: British Rearmament, Deterrence and Appeasement, 1934-35', *Armed Forces & Society*, Vol.14, No. 3 (Spring 1988), 329-357

Smalley, Edward, 'Qualified, but Unprepared: Training for War at the Staff College in the 1930s', *British Journal for Military History*, Volume. 2, Issue No.1, (November 2015), 55-72

Yelton, David, 'British Public opinion, the Home Guard and the Defence of Great Britain', *The Journal of Military History*, Vol. 58, No. 3 (July 1994), pp. 146-480

(iii) Books

Alexander, Colin, *Ironside's Line*, (London: Historic Military Press, 1999)

Allen, Hubert, *Who won the Battle of Britain?* (London: Arthur Baker, 1974)

Allport, Alan, *Browned Off and Bloody Minded: The British Soldier Goes to War 1939-1945*, (New Haven: Yale University Press, 2015)

Allport, Alan, *Britain at Bay, The Epic Story of the Second World War: 1938-1941*, (London: Profile Books, 2020)

Atkin, Ronald, *Pillar of Fire, Dunkirk 1940*, (Edinburgh: Birlinn Ltd, 1990)

Barclay, C., *The London Scottish in the Second World War 1939-1945*, (London: William Clowes & Sons, 1952)

Baron, Alexander, *From the City, From the Plough*, (London, Jonathan Cape, 1948)

Beckett, Ian, *Call to Arms: Buckinghamshire's Citizen Soldiers* (Buckingham: Barracuda, 1985)

von Below, Nicolaus, *At Hitler's Side, The Memoirs of Hitler's Luftwaffe Adjutant, 1937 – 1945*, English Version (London: Greenhill Books, 2001)

Bishop, Patrick, *Operation Jubilee, Dieppe, 1942: The Folly and the Sacrifice*, (London: Viking, 2021)

Bond, Brian, *British Military Policy Between the Two World Wars*, (Oxford: Clarendon Press, 1980)

Baughen, Greg, *The RAF in The Battle of France and The Battle of Britain*, (London: Fonthill, 2016)

Bungay, Stephen, *The Most Dangerous Enemy: A History of the Battle of Britain*, (London, Aurum Press, 2000)

Baughen, Greg, *The Fairey Battle*, (London: Fonthill, 2017)

Carver, Michael, Field Marshal, *The Imperial War Museum book of the war in Italy, 1943-1945: the campaign that tipped the balance in Europe*, (London: Sidgwick & Jackson, 2001)

Carver, Michael, Field Marshal, *Apostles of Mobility: the Theory and Practice of Armoured Warfare*, (London: Weidenfeld and Nicolson, 1979)

Churchill, Winston, *The Second World War: Volume II, Their Finest Hour*, (London: Cassell & Co., 1949)

Citino, Robert, *The Wehrmacht's Last Stand; The German Campaigns of 1944-1945* (Kansas: University Press of Kansas, 2017)

Clarke, Dale, *Britain's Final Defence – Arming the Home Guard 1940-1944*, (London: The History Press, 2016)

Collier, Basil, *The Defence of the United Kingdom*, (Uckfield: The Naval & Military Press Ltd, 1957)

Colville, John, *Man of Valour: Field Marshal Lord Gort*, (London: Collins, 1972)

Colville, John, *The Fringes of Power; Downing Street Diaries, Volume One, 1939 – October 1941*, (London: Hodder and Stoughton, 1985).

Cooper, Leo, *A Full Life, Brian Horrocks*, (London: Cooper, 1974)

Cox, Richard (editor), *Operation Sea Lion*, (London, Thornton Cox Ltd, 1974)

Crang, Jeremy, *The British Army and the People's War 1939- 1945*, (Manchester: Manchester University Press, 2000)

Craig, Norman, *The Broken Plume: A Platoon Commander's Story, 1940-1945*, (London: The Imperial War Museum 1982)

Danchev, Alex, *'Alchemist of War; The Life of Basil Liddell Hart'*, (London: Weidenfield and Nicholson, 1998)

David, Saul, *After Dunkirk: Churchill's Sacrifice of the Highland Division*, (London: Endeavor Press, 2013)

D'Este, Carlo, *Warlord: A Life of Churchill at War 1874 – 1945*, (London: Allen Lane, 2008)

Dimbleby, Jonathan, *Destiny in the Desert: The Road to El Alamein – The Battle That Turned the Tide*, (London: Profile Books, 2012)

Felton, Mark, *The Bridge Busters: The First Dambusters and the Race to Save Britain*, (Mandalay Books: London, 2019)

Fennell, Jonathan, *Combat Morale in the North African Campaign; The Eighth Army and the Path to El Alamein*, (Cambridge: Cambridge University Press, 2011)

Fitzgibbon, Constantine, *The Blitz*, (London: MacDonald, 1970)

Fleming, Peter, *Invasion 1940*, (London: Rupert Hart-Davies, 1957)

Foot, William, *The Battlefield's That Nearly Were*, (Stroud: Tempus Publishing Ltd, 2006)

Forczyk, Robert, *We March Against England – Operation Sea Lion 1940-41*, (London: Osprey, 2106)

Fraser, David, *And We Will Shock Them: The British Army in the Second world War*, (London: Bloomsbury Reader, 2011)

Fraser, David, *Alanbrooke*, (London: Harper Collins, 1982)

Franks, Norman, *Valiant Wings: The Battle and Blenheim Squadrons over France 1940*, (Wellingborough: William Kimber, 1988)

French, David, *Raising Churchill's Army: the British Army and the War Against Germany, 1919-1945*, (Oxford: Oxford University Press, 2000)

French, David *Deterrence, Coercion and Appeasement: British Grand Strategy, 1919 – 1940*, (Oxford: OUP, 2022)

Frieser, Karl-Heinz, *The Blitzkrieg Legend: The 1940 Campaign in the West*, (Annapolis, MD: Naval Institute Press, 2012)

Glover, Michael, *Invasion Scare 1940*, (London: Leo Cooper, 1990)

Godfrey, G., *The Duke of Cornwall's Light Infantry 1939-45*, (Hampshire: The Regimental History Committee of the Duke of Cornwall's Light Infantry, 1966)

Granatstein, Jack, *The Generals: The Canadian Army's Senior Commanders in the Second World War*, (Toronto: Stoddart Publishing, 1993)

Granatstein, Jack, *Canada's Army*, (Toronto: University of Toronto Press, 2002)

Granatstein, Jack, *The Weight of Command Voices of Canada's Second World War Generals and Those who knew Them*, (Vancouver: University of British Columbia Press, 2016)

Hall, David, *Strategy for Victory: The Development of British Tactical Airpower, 1919 – 1943*, (Connecticut: Praeger Security International, 2008)

Hamilton, Nigel, *Monty, The Making of a General 1887-1942*, (London: Book Club Associates, 1981)

Harris, John, *Men, Ideas and Tanks: British Military Thought and Armoured Forces, 1903 – 1939*, (Manchester: Manchester University Press, 1995)

Harrison-Place, Timothy, *Military Training in the British Army, 1939-1940*, (London: Routledge, 2016)

Hastings, Max, *Bomber Command*, (Michael Joseph: London, 1979)

Hastings, Max, *Finest Years: Churchill as Warlord 1940-45*, (London: Harper Press, 2009)

Holland, James, *The Battle of Britain: Five Months That Changed History, May - October 1940*, (London: Bantam Press, 2010)

Horne, Alistair, *To Lose a Battle: France 1940*, (London: Penguin, 1969)

Hylton Stuart, *Kent and Sussex in 1940: Britain's Front Line*, (Barnsley: Pen & Sword Military, 2004)

Ironside, Edmund, *Ironside: The Authorised Biography of Field Marshal Lord Ironside, 1880-1959*, (Stroud: The History Press, 2018)

James, Robert Rhodes, *Anthony Eden*, (London: Weidenfeld and Nicolson, 1986)

Karslake, Basil, *1940, The Last Act: The Story of the British Forces in France After Dunkirk*, (London: Leo Cooper, 1979)

Kershaw, Robert, *Dünkirchen 1940: The German View of Dunkirk*, (London: Osprey Publishing, 2022)

Kieser, Egbert, *Operation Sealion*, (Original edition, London: Cassell, 1997)

Lampe, David, *The Last Ditch: Britain's Secret Resistance and the Nazi Invasion Plan*, (London: Greenhill, 2007, c1968)

Larson, Robert, *The British Army and the Theory of Armoured Warfare, 1918 – 1980*, (University of Delaware, Newark, 1984)

Liddell Hart, Basil, *Strategy: The Indirect Approach*, (London: Faber & Faber, 1967)

Lindsay, Donald, *Forgotten General, A Life of Andrew Thorne* (Salisbury: Michael Russell, 1987)

Lofting, Ian, *We Shall Fight Them. Defeating Operation Sea Lion: the British Armed Forces and the Defence of the United Kingdom*, (Sussex; Self-Published, 2016)

Longmate, Norman, *The Real Dad's Army*, (London: Hutchinson, 1974)

Mackay, Robert, *Half the Battle, Civilian Morale in Britain in the Second World War*, (Manchester: Manchester University Press, 2002)

Mackenzie, Simon, *Politics and Military Morale: Current Affairs and Citizenship in the British Army, 1941 to 1950* (Oxford: Clarendon Press 1992)

Mackenzie, Simon, *The Home Guard: A Military and Political History*, (Oxford: Oxford University Press, 1995)

Macksey, Kenneth, *Armoured Crusader: The Biography of Major-General Percy 'Hobo' Hobart*, (London: Grub Street, 1967)

Maier, Klaus, Rohde, Horst, Stegemann, Bernd, Umbreit Hans, *Germany and the Second World War, Volume II, Conquests in Europe*, (Oxford, Clarendon Press, 1991)

Marshall-Cornwall, General Sir James, *Wars and Rumours of Wars*, (London, Secker & Warburg, 1984)

McKinstry, Leo, *Operation Sea Lion*, (London: Hachette, 2104)

McLaine, Ian, *Ministry of Morale: Home Front Morale and the Ministry of Information in World War Two*, (London Allen and Unwin, 1979).

Mead, Richard, *General 'Boy': The Life and Times of Lieutenant General Sir Frederick Browning*, (Barnsley: Pen & Sword Military, 2010)

More, Charles, *The Road to Dunkirk: The British Expeditionary Force and the Battle of the Ypres-Commines Canal, 1940*, (London: Frontline Books, 2013)

Orange, Vincent, *Biography of Air Marshal Sir Arthur Conningham*, (Center for Air Force History: Washington DC, 1992)

Overy, Richard, *The Bombing War*, (Penguin: London, 2013)

Ponting, Clive, *Myth and Reality 1940*, (London: Hamilton, 1990)

Posen, Barry, *The Sources of Military Doctrine*, (Cornell: Cornell University Press, 1984)

Probert, Henry, *Bomber Harris: His Life and Times*, (Greenhill: London, 2001)

Reid, Brian, *J.F.C. Fuller: Military Thinker*, (Basingstoke: Macmillan, 1987)

Richards, Dennis, *Portal of Hungerford*, (London: Heinemann, 1977)

Robertson, Terrance, *Dieppe: The Shame and the Glory*, (London: Pan, 1962)

- Rogers, David, *Defending Island Britain in the Second World War: Documentary Sources*, (London: Helion & Company, 2018)
- Rootes, Andrew, *Front Line Country; Kent at War 1939-1945*. (London; Robert Hale, 1988)
- Rowe, Mark, *Don't Panic – Britain Prepares for War, 1940*, (Stroud: Spellmount, 2010)
- Sangster, Andrew, *Alan Brooke: Churchill's Right-Hand Critic*, (Casemate: Oxford, 2021)
- Saunders, Tim, *Arras Counter-Attack 1940*, (Barnsley: Pen and Sword Military, 2018)
- Schenk, Peter, *Invasion of England 1940*, (Berlin: Oberbaum Verlag, 1987)
- Sebag-Montefiori, Hugh, *Dunkirk, Fight to the Last Man*, (London: Viking, 2006)
- Smalley, Edward, *The British Expeditionary Force, 1939-1940*, (Basingstoke: Palgrave Macmillan, 2015)
- Smart, Nick, *Neville Chamberlain*, (London: Routledge, 2010)
- Smith, Malcom, *Britain and 1940: History and Popular Myth*, (London: Routledge, 2000)
- Smurthwaite, David, *Against All Odds: The British Army of 1939 to 1940*, (London: National Army Museum, 1990)
- Sparrow, J., H., Lieutenant-Colonel, *Morale*, (London: The War Office, 1950)
- Storey, R., Neil, *Beating the Nazi Invader: Hitler's Spies, Saboteurs and Secrets in Britain 1940* (Barnsley: Pen & Sword),
- Strachan, Hew, *The Direction of War*, (Cambridge, Printing House Press, 2013)

- Strohn, Matthias, *The German Army and the Defence of the Reich; Military Doctrine and the Conduct of the Defensive Battle, 1918 – 1939*, (Cambridge; Cambridge University Press, 2011)
- Taylor, Frederick, *1939, A People's History, The War Nobody Wanted*, (London: Picador, 2019)
- Todman, Daniel, *Britain's War; Into Battle 1937-1941*, (London: Penguin, 2016)
- Todman, Daniel, *Britain's War: A New World 1942-1947*, (London: Penguin, 2021)
- Warner, Graham, *The Bristol Blenheim*, (Manchester: Crecy Publishing, 2002)
- Warner, Philip, *Auchinleck; The Lonely Soldier*, (London: Cassell, 1981)
- Wheatley, Ronald, *Operation Sea Lion*, (Oxford: Clarendon Press, 1958)
- Williams, David, *The Black Cats at War; The Story of the 56th (London) Division*, (London: Imperial War Museum Department of Printed Books, 1995)
- Wright, Martin, *Freyberg's War*, (London: Penguin, 2005)
- Ziegler, Philip, *Mountbatten: the Official Biography*, (Glasgow: Fontana, 1986)

(iv) Official Publications

Central Statistics Office, *Fighting with Figures; A Statistical Digest of the Second World War*, (London: C.S.O, 1995)

The Centre for Army Leadership, *The Army Leadership Doctrine, AC 72029*, (Royal Military Academy Sandhurst, September 2021)

Fletcher, David, *The Great Tank Scandal. Part 1; British Armour in the Second World War*. (London: HMSO, 1989)

Fletcher, David, *Mechanised Force: British Tanks Between the Wars*, (London: HMSO, London, 1991)

Hinsley, Francis, *British Intelligence in the Second World War (Abridged)* (London: HMSO,1994)

Piggott, Major-General A.K. *The Second World War, 1939 – 1945, Army; Manpower Problems*, (The War Office; 1949)

Sharp, Langley, Lieutenant-Colonel, *The Habit of Excellence: Why British Army Leadership Works*, (Copyright: Ministry of Defence), (London: Penguin, 2021)

War Office, *Field Service Regulations*, (London: HMSO, 1935)

Webster, Charles, and Frankland, Noble, *The Strategic Air Offensive Against Germany 1939-1945, Volume I*, (HMSO: London, 1961)

(v) Unpublished Theses and Dissertations

Bielecki, Christine, 'British Infantry Morale during the Italian Campaign, 1943 – 1945', (unpublished doctoral thesis, University College London, 2006)

Cording, Rex, 'The Other Bomber Battle: An Examination of the Problems that Arose Between the Air Staff and the AOC Bomber Command between 1942 and 1945 and their Effects on the Strategic Bomber Offensive', (unpublished doctoral thesis, University of Canterbury, 2006)

Cumming, Anthony, 'The Navy as the Ultimate Guarantor of Freedom in 1940?', (unpublished doctoral thesis, University of Plymouth, 2006)

House, Jonathan, 'Towards Combined Arms Warfare: A Survey of 20th Century Tactics, Doctrine and Organization', (unpublished dissertation, Combat Studies Institute, U.S. Army Command and General Staff College, 1984)

Jones, Alexander, 'Pinchbeck Regulars? The Role and Organisation of the Territorial Army, 1919-1940', (unpublished doctoral thesis, Oxford University, 2016)

Newbold, David, 'British Planning and Preparations to Resist Invasion on Land, September 1939 – September 1940', (unpublished doctoral thesis, Kings College, University of London, 1996)