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**Operations**

*What Was the Role of US Military Intelligence in the*

*Falaise Pocket Battle August 1944?*

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## 1 Introduction

From my own experience and study of military history, understanding what is really going on as well as the opportunities and threats, i.e. situational awareness, is crucial for sound decision making in battles, operations and campaigns. It seems this is universal and timeless although the internal weighting among the detailed factors will vary among these levels. Intelligence has been described as a key tool to building situational awareness in ancient manuscripts from Zun Tsu, until today's doctrines.

To understand bygone battles and campaigns, and especially to build knowledge about the dilemmas of command and control, it is important to consider what information was available to the commanders. Although one has to understand that intelligence is one of several factors to consider, any study of military operations<sup>1</sup> without considering intelligence will miss a crucial aspect of the whole picture.

Numerous military units are mentioned in this study. To be able to distinguish nationalities and levels of command they are referred to differently, see Appendix H – Unit reference Formats

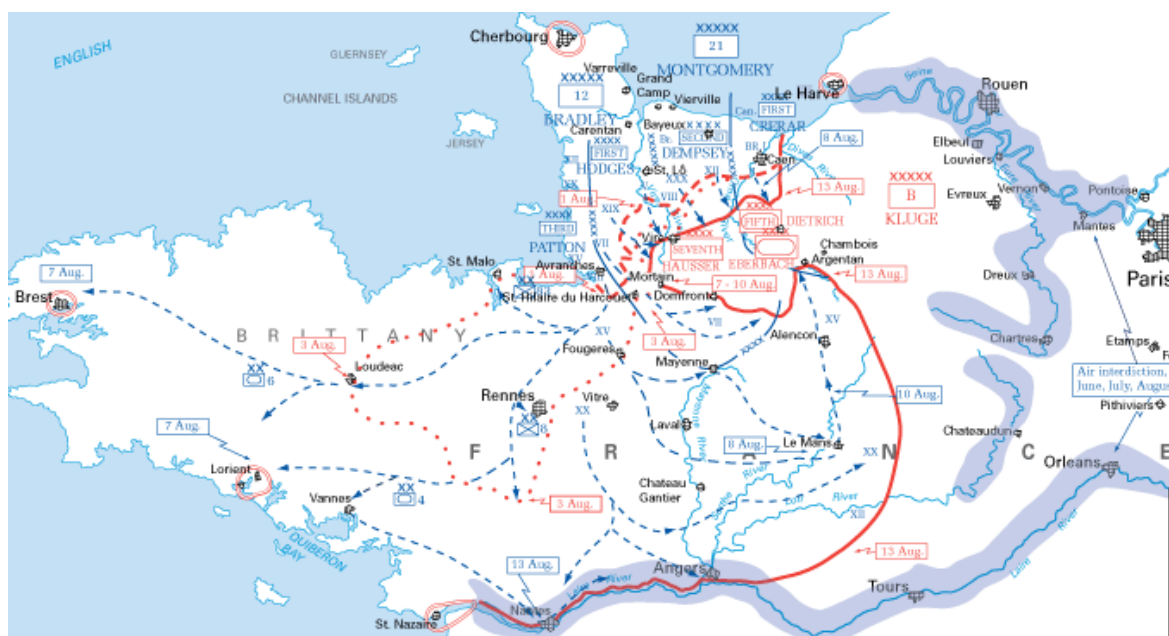
The US organized their staffs after the French “G-system” from Brigade up to Army Group and SHAEF. For those not familiar with this organization and their functional responsibilities, see Appendix A - US Organization of Army Group Staffs and Army Staffs.

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<sup>1</sup> I will use “operations”, to include battles and campaigns, throughout the introduction.

## 1.1 Background

The Allied armies landed in Normandy 6<sup>th</sup> June 1944 and met stiff German opposition. The long-term objective of the campaign was to defeat Germany and force an unconditional surrender. Air supremacy, intense naval firepower, strategic intelligence supremacy (Hinsley, Thomas, Simkins, & Ransom, 1988), special forces and the French Resistance in the rear (Foot, 2004) (Lewis, 1991), and eventual allied superiority of numbers on land, gave the Allies an overpowering advantage. Until 25<sup>th</sup> July the German Army Group B, with 7. Army and Panzer Group West, were relatively successful in containing the Allied land forces in their beach-head. However this came at a huge cost, the concentration of men and material was the largest of any campaign in World War Two, and the resulting combat was intense. In comparison, the German divisions in Normandy had twice the average attrition rate as they had on the Eastern front (Zetterling, 2000).



Map 1 - Breakout from Normandy. Source: US Military Academy, Historical Atlases

First US Army under Bradley was able to break the stalemate beginning with Operation Cobra West at St. Lo on 25 July, where they were able to break through towards Brittany with their right shoulder along the Atlantic Coast. Patton's Third US Army exploited the breach made by First US Army and advanced rapidly southwards to Brittany and wheeled east along the Northern bank of the River Loire towards Paris, simultaneously sending one Army Corps into the Brittany peninsula to capture essential ports for supply. This move initiated the encirclement of most of Army Group B<sup>2</sup> in what was later known as the Falaise Pocket. 1<sup>st</sup>

<sup>2</sup> The German Army Group B commanded 7<sup>th</sup> Army and 5<sup>th</sup> Panzer Army in Normandy.

Canadian Army and 2<sup>nd</sup> British Army pushed down from the North, First US Army attacked from the West and Third US Army attacked Army Group B's weak southern flank.

Hitler ordered a counterattack from Mortain Westwards to seal off the advancing Third US Army. Intelligence picked up on this plan and the attack was soon halted (Hinsley et al., 1988) (Koch & Hays, 1999). Not only did the attack fail, but several of the German panzer divisions that had been keeping the Canadians and British at bay South of Caen were utilized in the attack and sent into the noose. By 12 August XV Corps/Third US Army had reached Argentan with little opposition, where they initially continued their advance before being halted by General Bradley. (For a comprehensive narrative of the campaign, see for example D'Este or Zetterling & Tamelander , as well as a special discussion on the Falaise Pocket battles .

## 1.2 The research problem

*What was the role of US military intelligence when 150 000 German troops slipped away from the Falaise Pocket to fight another day?*

Generals Bradley and Montgomery have been criticized for failing to exploit the opportunity to completely destroy the German 7. Army and parts of 5. Panzer Army<sup>3</sup> in the Falaise Pocket, an opportunity which could have resulted in an even larger reduction of German combat power and probably shortened the war. When XV Corps reached Argentan the Germans still had more than 380 000 troops in Normandy and the majority were inside the pocket (Zetterling & Tamelander, 2004, p. 347). In the Falaise Pocket 50 000<sup>4</sup> casualties were inflicted on the German armies (Zetterling & Tamelander, 2004, pp. 364-365). If the German strength inside the pocket was 200 000 – 250 000 around 12 August, I estimate that around 150 000 – 200 000 “slipped out”. This study will explore the role military intelligence played for General Bradley's vital decision to halt Patton's Third Army and keep it from closing the German's escape route.

Other factors than intelligence, that have been pointed out or there are indications they are relevant to explain the decision are:

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<sup>3</sup> Panzergruppe West was re-named to 5. Panzer Armee on 6<sup>th</sup> August.

<sup>4</sup> Estimated to 10 000 killed and 40 000 captured. The number of wounded has not been possible to obtain, I have to assume there were a considerable number of wounded among the captured and that more wounded than usual succumbed to their wounds due to the fact that evacuation was near impossible for all but the lightly wounded towards the end of the battle.

- Personal relationships (Bradley – Montgomery – Patton) (Bradley, 1980) (D'Este, 1994), and the lack of regular command meetings between army group and army commanders (Boog, Krebs, & Vogel, 2001, p. 561) (Bradley, 1980) (D'Este, 1994).
- Doctrine on operations and operational planning. German Army as Centre of Gravity (COG) versus terrain (Brittany Ports and Seine crossings) (Weigley, 2005).
- Experience with intelligence, trust in and integrity of intelligence. As a result of intelligence doctrine and training (or the lack of it) (Koch & Hays, 1999) (Pogue, 1980).
- The lack of experience of the Canadian and Polish commanders, and of the troops of the 1<sup>st</sup> Canadian Army making up the Northern pincer (Boog et al., p. 561) (English, 2009) (O'Keefe, 2010)<sup>5</sup>.
- Poor weather which reduced the utilization and effect of the powerful allied tactical air forces in the vital period of fighting (Boog et al., p. 561).

I will discuss below how intelligence, and the resulting situational awareness from it, should be analysed together with these. An implication of the above doctrine factor is that a study of the role of intelligence should try to establish how intelligence planning, and direction for the next move, was conducted, i.e. how were information needs to support command decisions foreseen?

I have assumed that it would be suitable to choose a case study where there has already been other in depth studies discussing the relevant factors, *except* an in-depth discussion of intelligence. This way I aim to study a situation where the other factors are well known and have been singled out, their values have been discussed and weighted, and due to this hopefully it is possible to isolate them to a certain degree. This might provide a setting where it is easier to study and analyse intelligence and the value of its inherent factors, compared to a situation with a starting point with a less defined picture of the adjacent factors other than intelligence. Another basic assumption for my study is that if I find a crucial decision balanced on a knife-edge because of intelligence, then it is probably a situation where it can be possible to identify elements of intelligence that might have tipped the decision in another way, and hence obtain a deeper understanding of the value of intelligence in such a situation,

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<sup>5</sup> O'Keefe looks at the failure of the Canadian Army's intelligence and command system during operation TOTALIZE.

and thus make it is easier to verify the value of intelligence than in a case where all factors are up for scrutiny.

### 1.2.1 Research questions

- 1) How did Bradley's intelligence staff describe the enemy situation and probable reactions to 12<sup>th</sup> Army Group's efforts to encircle the German Armies on 8<sup>th</sup> through 13<sup>th</sup> August 1944?
- 2) How did Bradley's intelligence staff describe the enemy's capabilities, and factors liable to affect the course of action in the Falaise Pocket, and were they precise enough to be of use in the operational planning?
- 3) How were Bradley's intelligence staff's assessments received and used? Were they assumed to be reliable and thereby acted upon, in a timely manner?

### 1.3 Studies that have addressed the problem and their deficiencies

So far none have explored how intelligence might have tipped the command decision one way or the other.

#### 1.3.1 Studies covering the Falaise Pocket battles

**Blumenson's *Breakout and Pursuit*** (1961) is the official US account of the Campaign in Normandy from the breakout West of St. Lo late July 1944 (Operation COBRA) to early September 1944. It is a comprehensive account of the operations, well researched, but did not have the benefit of having intelligence files available for study when it was written. It discusses the reasons for, and Bradley's explanations for his decision to halt Third US Army at Argentan on 13 August, but lacks insight in the intelligence picture. It has valuable bibliography notes for the researcher as well as large fold-out maps to follow the operations.

**Hinsley et al's history of *British Intelligence in the Second World War*** covers the subject (Hinsley et al., 1988, pp. 22-277). However he covers it quite briefly with a short discussion on the actions taken on the available intelligence. This history is thoroughly researched, documented and referenced. It is based on British archives.

***Forearmed - A History of the Intelligence Corps*** (Clayton, 1993) is a history of the British Intelligence Corps. Although it only covers the campaign in Normandy with a short chapter, this provides a few useful insights in British intelligence capability to provide a complete order of battle on German units in this battle, as well as pinpointing them on the map.

In his guide to the historical works available, Johnston (2000, p. 49) argues that **D'Este's *Decision in Normandy*** is the best scholarly analysis of the overall campaign. It is well written

drawing on a wide range of relevant sources and it discusses many of the controversial issues of the campaign in a balanced way, including the Falaise Pocket battles (D'Este, 1994, pp. 437-460). However, it was written before the intelligence archives were opened to the public and is therefore missing vital background information on this perspective. Its value is also in how the study discusses the relationship between Bradley and Montgomery and probable results thereof, as well as Patton's personal situation which probably influenced his decisions.

**General Bradley** says in his memoirs **A Soldier's Story** that the decision to halt 3<sup>rd</sup> Army was his and his alone (Bradley, 1980, p. 377) thus removing any doubt as to who should be responsible for the decision. Bradley provides the factors he considered and an explanation to the decision. However, not all of the considerations are consistent, so they are worth studying. In his account of the Normandy Campaign, *D-Dagen* (D-Day), **Zetterling** (2004) brings some new perspectives on the Falaise Pocket battles, mostly related to the German forces who got away from the pocket. His previous book *Normandy 1944: German Military Organization, Combat Power and Organizational Effectiveness* [2000]; provides some valuable information on German combat power and OOB.

*A Command Post at War* gives a good insight in the workings of First Army's HQ in the Normandy Campaign, which was one of 12<sup>th</sup> Army Group's subordinate commands, and where General Bradley served as commander until he took command of 12<sup>th</sup> Army Group on 1 August 1944.

### 1.3.2 Studies on intelligence and Combat Intelligence in World War II

Koch was Patton's G-2 throughout World War II. He wrote his memoirs *G-2: Intelligence for Patton* (Koch & Hays, 1999) 25 years after the war. His explanation of intelligence procedures and organization is very enlightening, and he also describes staff work in Third US Army HQ which gives a good idea about how things worked. It provides leads for research in archives.

*Organization And Operation Of The Theater Intelligence Services In The European Theater Of War* (Schow et al., 1945) gives a good overview of the US intelligence services in Europe in WWII. This was an official and classified evaluation report.

*Combat Intelligence: A Comparative Evaluation* (Kirkpatrick, 1993) is a summary of 12<sup>th</sup> Army Group's After Action Report on the European Theatre of Operations. It discusses the value of different sources of information, e.g. POW interrogation, Air- and Photo Reconnaissance, SIGINT, Captured Documents and Agents (HUMINT).



*The Ardennes Campaign: The Impact of Intelligence* reveals several issues that might also be of relevance to the intelligence situation during the Faliase Pocket battles (Pogue, 1980). It has some revealing passages about 12<sup>th</sup> Army Group's G-2, Brigadier General Edwin L. Sibert, and his G-2 colleagues at SHAEF, 21<sup>st</sup> Army Group and 1<sup>st</sup> US Army.

**Phantom at War – The British Army's Secret Intelligence & Communication Regiment of WWII** (Parlour & Parlour, 2003). This study provides some valuable information on the use of the British *General Headquarters Liaison Regiment* at US Corps, Army and Army Group HQs, to provide situational awareness to commanders and their HQs. Although there are no direct quotations in the text, which makes the book seem less reliable as a source, four references are given to the national archives at Kew as well as a select bibliography.

### 1.3.3 Studies providing a possible methodical framework

*A New Approach for Measuring the Operational Value of Intelligence for Military Operations* (Cesar et al., 1994) is a RAND Corporation product made on order from the US Army. It points out some factors to assess performance of combat intelligence.

*Intelligence Power in Peace and War* (Herman, 1996) is a good source to find an overview of intelligence. It gives a structured presentation of what intelligence is, how it has developed and how it worked until the 1990s, making it a valuable reference-book.

*The Oxford Handbook of National Security Intelligence* (Johnson, 2012b) is a new theory book tailored for the intelligence student. *The Oxford Handbook of National Security Intelligence* is a new volume with an ambitious objective *to provide a state-of-the-art assessment of the literature and findings in this field of study* (Johnson, 2012a, p. 3).

### 1.3.4 Other sources

*The War Diary of General Bradley's Aide – Chester B. Hansen* (Hansen, 1944) gives an interesting insight in Bradley's life as commander, some of his thoughts and concerns, etc. The diary indicates a strained relationship between Bradley and Patton due to their different personalities and very different opinions on tactics and acceptable risks.

*The War Diary of General Patton* (Patton, 1945) gives an insight in his doings as commander and he also shares some thoughts on operations and his differing views with Bradley. It gives a good indication to his views on generalship and the need to take risks in war.

## 1.4 The significance of the study for particular audiences

For the professional military officer, both within intelligence organizations as well as outside, it is relevant to know how intelligence works in operations and how it may, or may not,

influence critical decisions. Especially to officers working with intelligence and operations assessment, planning and management, it is essential to know about the fallibility in the intelligence process, in addition to possible decision traps. This study will hopefully enlighten the reader to some central factors one should bear in mind in this line of work.

Intelligence studies are not new, but the professional interest in them in the West, and the volume of studies, has grown over the last decade. This seems to be related to the general increasing interest in strategic and military studies. Studies in intelligence are vital in order to expand the narrative from discussing what happened to include why it happened, by adding an important new perspective as what decision makers knew and had as their decision basis. Many studies have dealt with the strategic level, few with the tactical level bordering to the operational level of command. Thus, there are not many studies on how intelligence works in concert with operational decisions on the tactical level. Although one might expect that many of the factors concerning this phenomenon are the same across the levels, there are distinct differences. One important difference is the critical time factor related to ongoing operations. Less time to assess and discuss intelligence might for example mean less acceptable margins of error in general, leading to stronger requirements on team performance and team-building, etc. In sum, this study will be of empirical relevance by adding more knowledge on the category of intelligence in operations, and may hopefully be of theoretical relevance in this category as well by confirming or adding insight on the relationships between factors.

### **1.5 Purpose**

The objective of this study is to explore how military intelligence worked for General Bradley and try to understand how it played a role in establishing the basis for the vital decision to halt Patton's 3<sup>rd</sup> Army and keeping it from closing the escape route for the Germans. I will study the working relationships between those I consider the principal actors in a case study on the Normandy Campaign in the period 1<sup>st</sup> – 13<sup>st</sup> August 1944. I will base my study on literature as well as archival research on the files of Third US Army and 12<sup>th</sup> Army Group.

From my own experience, situational awareness is crucial for decisions in battle, and therefore it is very important to consider what information was available to the commanders in order to build a picture of their own and enemy forces, terrain, logistics, etc., leading to assessments of strengths and weaknesses, limitations and opportunities and possible actions. Understanding that intelligence is only one of several factors to consider, any study of military operations *without* considering available intelligence will miss a very important

aspect of the whole picture. Therefore, I propose to conduct a study on how intelligence contributed to one of the key decisions in the Normandy Campaign.

### **1.6 Limitation**

As the focus of this study is to research the role of intelligence with regard to General Bradley's decision to halt Third US Army from closing the Falaise Pocket on 13 August, I will limit my research to the information presented to General Bradley, i.e. information on the enemy and terrain in that specific area. I will not cover Counter Intelligence. Although this was an important part of the intelligence effort on the continent after the landings in Normandy, it does not have a direct bearing on Bradley's command decision.

## **2 Summary**

On 13 August 1944 the German armies in Normandy were on the verge of being totally enveloped by the Allied forces. This study has explored the role military intelligence played for General Bradley's vital decision to halt Patton's Third Army and keep it from closing the German's escape route. This study has looked at how Bradley's intelligence staff described the enemy situation, enemy capabilities and other factors liable to influence the course of action. An assessment has been made on the precision of intelligence in 12<sup>th</sup> Army Group and how it was received and utilized.

This study had used intelligence theory and doctrine to make an analytical framework before analysing the actual World War II intelligence reports and commander's briefings together with after action reports.

Bradley's intelligence staff was able to describe the enemy situation really well regarding which enemy units were there and the flux of new units coming to the area of operations. However, there were flaws when it came to the overview of independent units which could drastically increase the combat power of infantry and armored divisions. Imprecise analysis caused an underestimation of US combat power compared to German combat power. There were no assessments of the effects of air operations presented to Bradley or taken into strength assessments, neither were there assessments on how the supply situation influenced German combat power. An imprecise assessment of the actual US – German force relationship was probably a major factor which led to the decision to halt Third Army from closing the Falaise Gap, an objective they probably would have achieved estimating the available forces at both sides. However, there were additional factors which probably also contributed to Bradley's choice of decision.

Bradley was quite clear that destroying the enemy army was the right thing to do.

### 3 Abstract

On 13 August 1944 the German armies in Normandy were on the verge of being totally enveloped. This study has explored the role military intelligence played for Bradley's vital decision to halt Third Army and keep it from closing the German's escape route. This study has looked at how Bradley's intelligence staff assessed the enemy situation, enemy capabilities and other factors liable to influence the course of action. An assessment has been made on the precision of intelligence in 12<sup>th</sup> Army Group and how it was received and utilized. This study has analyzed actual World War II intelligence reports and commander's briefings together with after action reports. Bradley's intelligence staff was able to describe the flux of units in the area of operations. However, there were flaws in analysis of combat strengths. Imprecise assessments of the actual US – German force relationship was probably a major factor which led to the decision to halt Third Army from closing the Falaise Gap, an objective they probably would have achieved estimating the available forces at both sides

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## 4 Use of theory and doctrine on intelligence

I will put Sir David Omand's model of the intelligence cycle (2011) in the context of the US military intelligence doctrine, organization and processes of 1944, and use this as a cornerstone for the analytic framework. To show where military intelligence belongs in the theoretical framework, I will mainly draw upon Herman (1996) and US intelligence doctrine (JCS, 2003) (War\_Department, 1940) to categorize intelligence. Experience with intelligence, its integrity and trust in it are parts of this discussion, as well as the underlying doctrine and training.

As in all studies of organizations and their operation, it could be relevant to look at theories on the psychology of teams, for teams of intelligence analysts especially. However, in my study I will focus on how intelligence played a role for the commander and in his decisions, and in this sense I see the commander as a separate entity interrelating with his staff.

Although one can argue that a commander also is the leading member of the command group, I choose to look at the commander's function as separate from the staff functions due to his ultimate responsibility for the final and critical decisions on choice of the major alternatives for operations.

## 5 Method

First, I will draw the outline of a model as the analytical tool before I collect information for the analysis itself. Then I will make a chronological narrative as a vehicle for the analysis.

Last, I will make a synthesis where I will connect my findings with the model presented in the first part, before I conclude.

### 5.1 Review of intelligence theory and doctrine

I will start my study with a review of intelligence theory to draw up and expand on the analytical framework compared to the short introduction above. This will include theory on:

- What is intelligence and how to categorize it
- The intelligence cycle as a model
- How to assess intelligence performance
- Manuals on combat intelligence

### 5.2 Search of primary sources

With preliminary conclusions from theory to structure my analysis, I will start my research in the National Archives in Washington to find primary sources.



- I will first find the overarching and edited material such as the G-2 After Action Reports (AAR) of Third US Army and 12th Army Group (Vol. II and Vol. IV respectively).
- Thereafter I will look up the Intelligence Summaries and Reports to and from both organizations, in addition to G-3 assessments.
- Finally I will find the communications journals to look through in and outgoing traffic to collect spot-reports and other important traffic not in the regular products from G-2, G-3 and COS.

### **5.3 Use of sources**

Where there are both secondary and primary sources available as information on a subject, I will use the primary source as the basis and the secondary as support. Where there is much information from primary sources, I will use the most contemporaneous information with the least possibility for hindsight. However, I will also evaluate the source with regard to potential conscious and unconscious biases. Finally, I will consider primary sources with regard to how well informed they probably were, and for secondary sources how precise they have been regarding documentation and references.

### **5.4 Write up of an operations narrative as vehicle for the analysis**

With this in hand I will initially draw up a chronological narrative of operations in Normandy from 1<sup>st</sup> to 21<sup>st</sup> August 1944. This includes the time from when the Third US Army was activated in France, and two days after the Third US Army and the Canadian Army linked up east of Falaise on 19<sup>th</sup> August.

When the narrative outline has been established I will add the specific intelligence input throughout this and then start the analysis according to the research questions and the analytical framework mentioned above (theory on intelligence and operational art).

### **5.5 Synthesis of findings and conclusion**

At the end of the study I will draw together the findings and preliminary conclusions from each section. I will put the factors together and assess the relationship between them as well as try to say something of their relative importance in my case study. I will point to avenues of future research and, if applicable, how any findings may be used in theory and/or doctrine.

## **6 Intelligence theory**

In this chapter I will review intelligence theory to draw up and expand on the analytical framework compared to the short introduction above. The main theme will be military and

tactical intelligence, what the role of intelligence is in operational planning and management of operations, and finally the Intelligence Cycle.

Studies of intelligence are relatively young as a discipline and the amount of studies have increased steadily since the 1970s. Intelligence theory as we know it today has mostly developed since WWII, with a sharp rise in studies outside the US over the last two to three decades. Therefore, intelligence theory is still at a maturity level where there are overlapping terms and less than fully conclusive theories. Intelligence theory is less than an exact science, often because intelligence is shrouded in secrecy and therefore difficult to get a clear picture of. It follows from this that intelligence theory is characterized by uncertainty in addition to complexity from intelligence's manifold processes and activities.

*... much of the intelligence process cannot be observed – especially not through the prism of official documents – and thus we must also develop speculative hypotheses that can be tested against the evidence (Gill, 2012, p. 44).*

Discussing events when terms were different and could have different meaning than today, notwithstanding using terms in such a discussion that has been developed after WWII, is challenging. However, I will argue that it is better to use terms and theories of today with a higher maturity level to analyse a situation as precisely as possible, than to only revert to terms used 70 years ago. Terms and theory from WWII were also overlapping, inconclusive, contradictory and sometimes lacking. This method does of course require an explanation of possible differences of terms where this occurs. Likewise, it requires an explanation where there are important differences between today's and past procedures.

Keeping these challenges in mind, I will try in the following sections to define military intelligence in the proper context. First I will present a definition of intelligence and its purpose. Then I will explain my understanding of the current theory on categories, tools, sources and types of intelligence.

### **6.1 Intelligence – its purpose and definition**

In the following I will use definitions which view intelligence in a war perspective. Much intelligence theory sees intelligence in light of the cold war, and in “peacetime”, and much of this theory mainly covers strategic intelligence. Because my study is about a command decision in war, I will primarily use theory from scholars who incorporate the whole picture from strategic intelligence down to military intelligence at the lowest level of command.

Gill's definition of intelligence focuses on process<sup>6</sup>, but he also explains intelligence's important function of forewarning, related to politics:

*Specifically, intelligence is “mainly secret activities – targeting, collection, analysis, dissemination and action – intended to enhance security and/or maintain power relative to competitors by forewarning of threats and opportunities”* (2012, p. 45).

This illustrates intelligence as clandestine actions made by two or more (potential) political and military antagonists against each other. It is far more common to utilize intelligence resources in a state other than war, in a contest between nations, than to utilize military force in war. This might be part of an explanation as to why most intelligence theory is about strategic intelligence utilized in such a contest. An important characteristic of intelligence is that it is done in secrecy, to keep an adversary in the dark as to the extent of your knowledge. Gill's definition of intelligence is quite broad but points us in a clear, if general, direction.

Johnson says about purpose:

*The main purpose of intelligence is to provide information to policy-makers that may help illuminate their decision options* (2012a, p. 5).

Sir David Omand introduces other important perspectives to the purpose of intelligence, e.g. quality of decisions (optimization) and their timeliness:

*Intelligence enables action to be optimised by reducing ignorance . . . as well as it should help . . . improving quality and timeliness of decisions* (2012b, pp. 3-4).

However, other scholars and professionals want to include other elements in intelligence as well. Sherman Kent's definition of intelligence presents three elements of intelligence – *knowledge* [both information and how this is interpreted] . . . *organization* which produces the knowledge . . . *the activity* pursued by the intelligence organization [ed. emphasized] in (Herman, 1996, pp. 1-2). Herman argues that organization is the most important element (1996, p. 2).

According to Rainsborough, Intelligence has three main components: 1) *Espionage*<sup>7</sup>, 2) *Counter intelligence* and 3) *Covert operations* (2012, pp. 41-48). The first, espionage, is the core component of intelligence; collection, analysis, dissemination of information and the management of this process.

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<sup>6</sup> This process is more specifically known as the intelligence cycle, which will be covered below.

<sup>7</sup> Some authors distinguish between espionage and electronic collection, but I group these as one component. Such a division is more appropriate when discussing sources.

As it does not bear directly on the focus of this study, it will not cover counterintelligence and covert action further.

## 6.2 Strategic Intelligence and National Security Intelligence

These terms are used interchangeably about intelligence for the use of governments' policymakers. The term "Strategic Intelligence" is used more frequently by US scholars and intelligence professionals than by the British (Scott, 2012, pp. 138-139). British scholars today talk mainly about national security intelligence and Johnson argues that this is a better term because *the topic encompasses tactical as well as strategic intelligence* (2012a, p. 3). I interpret Johnson thus that his argument is that the topic covers both the strategic level, where policy is made, as well as the executive level which is everything below the strategic level.

Tactical intelligence has two distinct, although partially overlapping meanings:

*Intelligence required for the planning and conduct of tactical operations [i.e. operations at the tactical level of command/war] (JCS, 2003, pp. GL-16).*

*"actionable" . . . that is, specific enough to allow policy officials [or any decision maker, civil or military] to act upon the information (Johnson, 2012a, p. 21).*

This means that tactical intelligence, as actionable, can be found in all categories of intelligence and in this meaning is not linked to a specific level of command. However, in the other meaning of the term it *is* linked to the tactical level of command and the operations conducted at that level (JCS, 2003, pp. xi, III 8-9, IV 19-24). US doctrine today also covers what intelligence should be at the operational level of command. Since my study is focusing on the tactical level, I will not go further into detail on this issue<sup>8</sup>.

The US military use this definition of *strategic intelligence* (JCS, 2003, pp. GL-16):

*Intelligence required for the formation of policy and military plans at national and international levels. Strategic intelligence and tactical intelligence differ primarily in level of application, but may also vary in terms of scope and detail.*

This means that this type of intelligence is for the benefit of the nation, it is not sector specific, and it has to cover many aspects. However, in the US, *national intelligence* is defined thus (JCS, 2003, pp. GL-14):

*The terms "national intelligence" and "intelligence related to the national security" each refers to all intelligence, regardless of the source from which derived and including information gathered within or outside of the United States, which pertains,*

<sup>8</sup> For a discussion on intelligence at the operational level, see (JCS, 2003, pp. xi, III 8-9, IV 19-22, GL-15).

... to the interests of more than one department or agency of the Government; and that involves (a) threats to the United States, its people, property, or interests; (b) the development, proliferation, or use of weapons of mass destruction; or (c) any other matter bearing on United States national or homeland security.

Thus, national intelligence is neither sector specific nor are its sources restricted to domestic or foreign, although the purpose is national and homeland security. Strategic intelligence is neither sector specific, but it has primarily a perspective towards international politics and has a more outward looking perspective.

In Herman's discussion on categories of intelligence, he draws up a distinction between foreign and security intelligence, where foreign intelligence is aimed at foreign entities whereas security intelligence is aimed at countering threats to the internal security of one's own country (1996, pp. 47-48). However, there is considerable overlap because external threats have internal components and vice versa: e.g. *foreign intelligence is often collected on home territory and security intelligence abroad* (Herman, 1996, p. 48).

### 6.2.1 Foreign Intelligence

The largest segment of foreign intelligence

... has been defence intelligence, in the broad sense of everything pertaining to foreign military power and activities [including wars] . . .

In summary, defence intelligence can be said to encompass all armed capabilities and activities; military, paramilitary and armed civilian/insurgent.

Foreign intelligence can be further divided into *internal political intelligence* on another countries' internal policies, and *external political intelligence* on other states' foreign policies, which combined is also called "*diplomatic support*"<sup>9</sup>.

Another way to categorise foreign intelligence is by country or geographic area, although this is a very rough way to do it and not really adequate today when collecting information on activities spanning several countries and regions, for example the arms trade, nuclear proliferation, etc. Complex subjects can also lead to complex organization of intelligence services and resulting challenges of management, which were both apparent during WWII and

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<sup>9</sup> The term *diplomatic support* is used because this type of intelligence typically adds a small percentage of the total amount of diplomatic reporting and studies in open sources on such issues by other than the intelligence services. Where societies are closed, and few open sources are available, intelligence may become all the more important.

today<sup>10</sup>. However for WWII studies this is a useful categorization as the allied intelligence services also mainly organized their efforts by geographic regions.

### 6.3 Military Intelligence

From the previous section we remember that defence intelligence was the major part of foreign intelligence. Military intelligence is again the major part of defence intelligence. Military intelligence will mainly be concerned with a potential opponent's military capabilities, i.e. their military forces, weapons, equipment, training level, etc. Military intelligence will need information on capabilities relating to the strategic level mentioned above, but this will primarily be on those parts of national capabilities which have a direct influence on military capabilities; such as manpower, economic power, industrial base, etc. Modern US doctrine sees intelligence as refined information about an adversary (JCS, 2003, pp. I-1):

*... when data is collected from a sensor and processed into an intelligible form, it becomes information and gains greater utility. Information on its own is a fact or series of facts that may be of utility to the commander, but when related to other information already known about the operational environment and considered in the light of past experience regarding an adversary, it gives rise to a new set of facts, which may be termed "intelligence".*

Figure 1 describes how this is understood (figure taken from (JCS, 2003, pp. I-2)). This definition of military intelligence as purely refined information is very narrow compared to the definitions explained in section 6.1 above. However, the explanatory strength of this definition is then stronger as it does not span such a wide multitude of tasks, missions and organizations. It has also been consistent over time, ref. section 6.3.3 below. The tasks of intelligence<sup>11</sup>; such as planning and direction, collection, analysis, and dissemination etc. are explained in section 6.5 with sub-sections below.

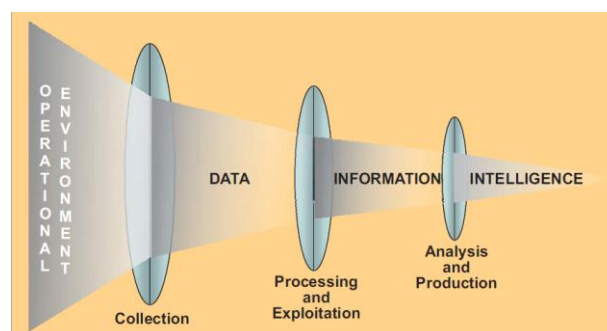


Figure 1 - Relationship between data, information and intelligence.

<sup>10</sup> See Hinsley et al (1979) (1988) and Benson (1997) for a comprehensive narrative of reorganization, management and administration of the British and US intelligence services during WWII. For example today the US has a separate intelligence service for watching nuclear proliferation worldwide.

Herman builds on NATO terminology and explains the distinction between intelligence and combat information<sup>12</sup>. Combat information is the kind of observations for immediate use or warning, e.g. radar surveillance; which are not under control of intelligence organizations, but by operations staffs and usually conducted by operational and supporting units (Herman, 1996, pp. 121-124). The following table is taken from Herman and added with examples (1996, p. 123).

<b>Intelligence</b>		<b>Combat Information</b>
“National” intelligence resources	“Tactical” intelligence resources	Non-intelligence sensors/activities (Operational recce, combat observation, radar, Electronic Warfare, etc.)
Central “strategic” control	“Local” sub-strategic control (by intelligence staffs in theatre)	Operational control
Produces for use at all levels, according to needs and sources	Used at operational and tactical commands	<ul style="list-style-type: none"> <li>• Immediate use in combat or for operational warning</li> <li>• Use not dependent on intelligence staff</li> <li>• Data available to intelligence staff for incorporation into intelligence analysis</li> </ul>
Today’s examples: <ul style="list-style-type: none"> <li>• Satellites (IMINT+SIGINT)</li> </ul>	Today’s examples: <ul style="list-style-type: none"> <li>• Airborne surveillance</li> <li>• Ground reconnaissance</li> </ul>	Today’s examples: <ul style="list-style-type: none"> <li>• Airborne radar surveillance</li> <li>• Ground reconnaissance</li> </ul>
WWII examples: <ul style="list-style-type: none"> <li>• ULTRA</li> <li>• US War Department intelligence</li> <li>• British SIS HUMINT</li> </ul>	WWII examples: <ul style="list-style-type: none"> <li>• US JEDBURGH teams (under SHAEF)</li> <li>• Photo reconnaissance</li> <li>• Tactical SIGINT</li> </ul>	WWII examples: <ul style="list-style-type: none"> <li>• Air reconnaissance (observation)</li> <li>• Aerial radar warning</li> <li>• Artillery (counter battery) reconnaissance</li> </ul>

Table 1 - Relationship between Intelligence and Combat Information

Of interest here is the seemingly blurred line between current intelligence under sub-strategic control and combat information. In real life, the line is less blurred as the intelligence assets are usually meant for collection at longer ranges and/or not for immediate use (although some

<sup>11</sup> JP 2-0 terms these tasks as *intelligence operations* (JCS, 2003, pp. I-6, I-7). I choose not to use this term, as it can be easily confused with the broader meaning of the term “operations”.

<sup>12</sup> The term combat information must not be confused with combat intelligence explained below.

assets for covert action are for this purpose). E.g. airborne surveillance with drones (UAVs) for intelligence purposes generally have a longer range and endurance, while drones for combat information have shorter range and endurance and can be controlled down at the lowest tactical level of command. However, intelligence assets *can* be attached to operational control and used for operational purposes in specific situations, and conversely operational assets will sometimes be tasked with information gathering for intelligence purposes.

### 6.3.1 Generic requirements

Herman argues that there are two factors to judge intelligence in support of operations by (Herman, 1996, p. 145):

*One is its accuracy in an absolute way compared to reality, and the other is its quality compared with the opponent's; it is possible for both sides to have good or bad intelligence about the other.*

I agree with Herman that these two factors can be used for judging intelligence. However, I would say that it is also important to see how the intelligence system with its processes works. The intelligence cycle is a metaphor for this system and can be used for such analysis. I discuss this further in section 6.5. It would be very interesting to use Herman's factors in a more comprehensive study on intelligence in the Normandy Campaign, expanding it to compare the effectiveness of German and Allied intelligence services down to the tactical level of command. We already know a lot about the strategic level, but less about the operational and tactical levels especially on the German side<sup>13</sup>. However, this will require such extensive research that it would be unfeasible in a thesis. What I will do is to look at accuracy in intelligence regarding the enemy and terrain factors.

An important question then is – how accurate need intelligence be to guide the Army Group commander? It should identify the relative strength of the German ground and air forces, their capabilities and possible courses of action open to them. It should also show how terrain will influence enemy operations. Enemy strengths need to be broken down to units that can be compared with one's own, and the terrain analysis should also include an assessment of how terrain and air forces can multiply the relative strength and force posture, e.g. defence, attack,

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<sup>13</sup> David Kahn has written a quite comprehensive work on German intelligence in WWII, with a section covering the Normandy Campaign. However, he does not have much discussion on how the complete intelligence cycle worked. Although he discusses how the German intelligence system failed in Normandy, it could use a more in-depth comparison of the Allied and German intelligence systems and their effectiveness (Kahn, 2000).



delaying action, etc. The following section will cover how this was prescribed in US WWII doctrine.

### 6.3.2 Intelligence and Commanders in War

Analysing the effects of intelligence is not easy, because it is so dependent on other factors such as forces and commanders to utilize it. A commander can have the best intelligence and a huge intelligence superiority versus his adversary, but if he is unable to convert it into optimized action it is of no use. Similarly, a commander may have the advantage in intelligence and have inferior forces unable to defeat his adversary. However, commanders and policy makers also need to be trained in the use of intelligence, and learn to know their intelligence services. Otherwise they will not be able to evaluate or trust intelligence put in front of them and thus not be able to fully exploit it.

The German invasion of Crete was also forewarned by intelligence. Although the Allied commander had intelligence on the German objectives and when they were to attack, he was not able to prevent the better German forces from conquering Crete<sup>14</sup>. Much has been written about this, and it can be conservatively said that poor Allied command and control was a major factor in their defeat on Crete. Good intelligence cannot win the battle if one or more other factors are too weak. As Herman put it (1996, p. 145):

*Better Allied intelligence in the early years of the Second World War would not have avoided defeats by more effective German forces, though it might have reduced the scale of disaster.*

Finally, the aggressiveness and self-confidence of commanders are just as important. There are no guarantees in war, and there will always be uncertainty. A commander needs training and experience to overcome his own fears and uncertainty, and to learn to make calculated risks in order to obtain results. Although good intelligence can lead to better decisions and better optimization of use of resources, it cannot alter commanders' personalities. Experience shows that by reducing uncertainty, intelligence can make aggressive commanders more

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<sup>14</sup> However he was able to inflict almost 40% casualties on the German forces which probably dissuaded the German high command from attempting a similar assault on Malta later, which probably would have succeeded. The Allies were able to hold on to Malta and from it intercept 20-60% per month of the seaborne supplies to Axis forces in North Africa (Hinsley, Thomas, Ransom, & Knight, 1981, pp. 319-324, 728-738). Given how much this hampered Rommel's operations, it probably was a major reason why he was not able to reach Suez. Looking at it from this perspective, intelligence had a major impact on the outcome of operations in the Mediterranean.

audacious, but cautious ones will probably become more calculated rather than more prudent or more aggressive (Herman, 1996, p. 145).

The Union generals Sherman and Grant were both successful commanders in the American Civil War, where Sherman was more calculating than aggressive whereas Grant became known as a rather aggressive commander. Grant, seemingly overcoming his initial cautiousness through experience, developed aggressiveness to the level of total disregard of the enemy's actions. Sherman expressed about Grant (Lowenthal, 2003, p. 199)

*. . . I'll tell you where he beats me and where he beats the world. He don't care a damn for what the enemy does out of his sight, but it scares me like hell<sup>15</sup>.*

Grant was probably both calculating and aggressive, and although he always *felt more or less anxiety* (Ulysses S. Grant<sup>16</sup> quoted in (Lowenthal, 2003, p. 198)) when facing the enemy, he accepted the risks and possible casualties as the price for forcing his will upon the enemy and achieving victory. The Civil War had also shown that over-cautiousness did not bring decisive results and Grant must also have had in mind that his predecessors had been sacked for this. To achieve decisive results in war, the commander needs to be well trained in command, be both aggressive and calculating. He should know how to recognize good intelligence as well as how to utilize it. He is also dependent of sufficient forces to do this, but good intelligence will allow him to optimize the use of what he has.

### 6.3.3 WWII US Intelligence Doctrine

Available literature on military intelligence was scarce and its contents thin when US forces entered the war in Europe (Koch & Hays, 1999, p. 15)<sup>17</sup>. The cornerstone publication was FM 30-5 Military Intelligence, Combat Intelligence from 1940. With 36 pages in 8 chapters covering an introduction, *intelligence functions and organization; collection, collation, and evaluation and interpretation of information; G-2 estimate of the enemy situation; dissemination; and training* in approximately A-6<sup>18</sup> format, it was not very comprehensive. However, it gave this rather comprehensive definition of military intelligence (War\_Department, 1940, pp. 1-2):

<sup>15</sup> Sherman has been quoted in many books, but the original source seems to be elusive.

<sup>16</sup> Ulysses S. Grant, *Personal Memoirs*, (New York: Library of America, 1990), pp. 163-65.

<sup>17</sup> According to my findings, the 1940 FM 30-5 Field Manual, Military Intelligence was not replaced until 1946 (with a new edition). However, there were some important additions to the US literature during the war, such as for air force intelligence.

<sup>18</sup> A6 = 148 x 105 mm / 5.8 x 4.1 in.

*Military intelligence is evaluated and interpreted information concerning a possible or actual enemy . . . It includes information concerning enemy capabilities or possible lines of action open to him, as well as all that relates to the territory controlled by him or . . . military intelligence is divided into two general classes; combat intelligence and War Department intelligence.*

- a. *Combat Intelligence.* – *Combat intelligence is the military intelligence produced in the field . . . Usually this class of intelligence is confined to the terrain and to location, strength, composition, dispositions, movements, armament, equipment, supply, tactics . . .*
- b. *War Department intelligence.* – *(1) War Department intelligence is the military intelligence produced under the direction of the War Department General Staff in peace and in war. Every country and every possible theater of operations is studied.*

In my study, combat intelligence is the main interest because this covers what would be the main basis for Bradley's decision. Simply said, ***it is about the enemy, terrain and climatic conditions*** with which, over which and in which the fight will be. Of importance here is that counter intelligence is not defined as a part of military intelligence, although military intelligence can be a part of counter intelligence.

FM 30-5 defines enemy capabilities (War\_Department, 1940, pp. 6-7):

- a. *Enemy capabilities.* – *(1) In any situation, the lines of action of which the enemy is physically capable and which can possibly affect the accomplishment or manner of execution of our mission are called the enemy capabilities for that particular situation. The term "capabilities includes not only the general lines of action open to the enemy, such as attack, defense, or withdrawal, but also all the particular lines of action possible under each general line of action.*

The US military still use the term "enemy capabilities" (JCS, 2003, pp. GL-8). This term can be a little confusing because I would use the term "capability" about a physical and/or technical ability to conduct an action successfully. E.g. "the enemy has the capability to deliver precision munitions toward key targets such as bridges, command posts etc", or "the enemy has the capability to span a 50 m wide, 5 m deep gap with two class 70, one-lane-bridges, within 6 hours". Today we use the term "courses of action" about our own and enemy possible actions, such as "I will make a right flanking attack to unhinge the enemy position (instead of a frontal assault or left

flanking manoeuvre); the enemy might conduct delaying actions between xx and yy and then use the strong defensive terrain in the area a, b, c, and d to hold this position in order to delay our advance and inflict casualties to our forces before stopping our advance at nn". I understand that "enemy capabilities" is used when you have to describe with a high level of detail. To be consistent with doctrine I will use "enemy course action" when I mean a broad outline of possible actions, and "enemy capabilities" when I mean a specific detailed line of action. However, I will make the difference clear where necessary in subsequent sections.

A distinction between FM 30-5 and today's doctrine is that FM 30-5 does not explicitly separate combat information as different from intelligence (ref. section 6.3 above). For commanders, especially at the lower tactical levels, combat information is of great importance to obtain situational awareness. Thus, to obtain situational awareness it is vital to have both intelligence as well as combat information available, and a great advantage is to have both sets of information graphically displayed together. That the authors of FM 30-5 understood this is clear from their guidance on collation of information (War\_Department, 1940, p. 21):

*It is often necessary or advisable to show on the situation map certain of our own dispositions in order that the hostile situation may be more readily understood. . . .*

*In brigades and lower units, it is not advisable for each staff section to keep a separate situation map but the data from each section are ordinarily entered on one map which is kept under supervision of the executive officer.*

FM 30-5 is consistent with the need of a terrain assessment as discussed in the previous section. In short, it states the need of a terrain study in the area of operations from the viewpoint of the enemy (War\_Department, 1940, pp. 9-10). This should cover all enemy courses of action.

#### **6.3.4 Intelligence Output and a WWII Benchmark**

Military intelligence has to cover the *location, strength, composition, etc.* of a foreign army to wage war. It also has to cover *terrain*, as well as *topography and climatic conditions* that may influence, or even dictate, the course of operations. The main purpose of military intelligence is to enable optimized use of the forces available. It should present both threats and opportunities. Intelligence has to be provided in time for the decision maker to decide so that our own actions hit the enemy at the right time and place, or prevents them from doing the same with us unprepared.

Major questions which need to be answered are: how strong is the enemy and where are his forces; how fast can he reinforce where and with what; are there capabilities and characteristics of his forces that require special consideration; what defences has he prepared and where; are there special terrain features that have an influence on defences and their strength, avenues of approach and cover, etc., will he fight to the last round and/or counterattack or withdraw, and under what circumstances?

For the Falaise Pocket battles both land and air forces, and thus also intelligence on air forces were important<sup>19</sup>. It revealed the only major German concentration of air power attempted against the allied ground forces in Normandy. When the Luftwaffe concentrated all available air units to support the counterattack on Mortain<sup>20</sup>, the allied tactical air commands had enough forces to both seal off and keep the Luftwaffe away from the area of operations, as well as to heavily engage the approaching German attack columns on the ground. Allied air supremacy with plenty of available forces for air interdiction (AI) and close air support (CAS) was a constant factor<sup>21</sup> in August 1944. Combined with intelligence, allied air power was so overwhelming, that German air power never had any real influence on land operations.

Third Army's broad Essential Elements of Information (EIs) could typically call for information on *location, identification, disposition, strength and morale of the enemy* (Koch & Hays, 1999, p. 82). Koch outlines the intelligence products from his Third Army G-2 section thus (1999, pp. 140-144):

<b>Intelligence product</b>	<b>Contents</b>	<b>Frequency</b>
<b><i>G-2 Periodic report</i></b> Distributed to higher, lower and lateral HQs (150 copies).	Summary of the enemy situation. Enemy order of battle (OOB), disposition and status of forces, defences, weather forecast.	Daily, distributed by daylight/morning.
<b><i>G-2 Estimate of the situation</i></b> Distribution as above.	Enemy capabilities, with a most probable (logical) capability presented. Each enemy capability was discussed pro and con in writing.	Irregularly (Third US Army distributed a total of 14 Estimates during 1944-1945).
<b>Spot reports</b> As required according to situation.	Enemy actions and intentions collected from sources; e.g. Prisoners of War (PW), signals intercepts, Air Recce (AR) etc.	As required according to situation.

<sup>19</sup> This is not to be confused by work in the G-2 Air branch of the US Army and Army Group HQs, who dealt with photo and air reconnaissance for the land forces.

<sup>20</sup> Operation LÜTTICH.

<sup>21</sup> During flyable weather conditions. Even if it took some time to counter German night missions, these were few and only achieved minor success in the big picture.

<p><b>Other intelligence reports</b> Distribution probably as above.</p>	<p>Mainly bulletins on enemy tactics and weapons etc. and target area analyses for direct application to operational planning.</p>	<p>Bulletins usually monthly and target area analyses as required.</p>
<p><b>Intelligence briefings</b> Informal for CO and key staff members. Formal for Army Staff section and branch chiefs.</p>	<p>On the content of the Periodic report and updates, followed by a tactical discussion among CO and key staff members. The short formal briefing only on the Periodic report and updates.</p>	<p>Daily. The informal at 0800 immediately followed by the formal. A special ULTRA briefing was held at 0900 for a limited group of key personnel, see section 8.5.1.<sup>22</sup></p>

Koch goes into some detail to explain an issue of importance regarding the enemy order of battle (OOB) (1999, pp. 83-87). The enemy disposition of forces and OOB was usually displayed on situation maps by symbols representing divisions committed to the Normandy front. The G-2 staff also kept designated records of tanks, artillery pieces and other main equipment and counted and estimated losses of these accordingly. After weeks of continual combat, several divisions had shrunk dramatically in combat value. To be able to convey a meaningful estimate of the real enemy strength, the G-2 section established a system where they kept an overview of each division's relative combat value represented by manoeuvre/combat battalions.

A German panzer division's manoeuvre/combat battalions were 2 tank battalions and 4 panzer grenadier (infantry) battalions<sup>23</sup>. They also had a mechanized reconnaissance battalion. SS panzer divisions had 2 more panzer grenadier battalions. Most infantry divisions had 6 infantry battalions; the *Fallschirmjäger* divisions had 9 as did a few infantry divisions. According to German tactical employment of assault guns as substitute for tanks, and combat engineers and reconnaissance battalions as infantry, it is reasonable to assume that the G-2 section counted these battalions among combat battalions. It is less certain whether the anti-tank battalions were calculated as combat battalions; these were sometimes a mix of towed and self-propelled companies, and with an anti-aircraft artillery (AAA<sup>24</sup>) company. Each regular division typically had one each of anti-tank and combat engineer battalions. The panzer divisions had in addition an AAA battalion which could be used with effect against

<sup>22</sup> Koch does not mention this special briefing himself, the information is taken from Church's report on Ultra in Third Army.

<sup>23</sup> These were authorized strengths according to the table of organization and equipment (TOE). Zetterling has a comprehensive study of German units' authorized and actual organization and strengths in the Normandy Campaign (Zetterling, 2000).

<sup>24</sup> Pronounced "triple-A".

ground targets. The German divisions in Normandy therefore had 8-11 combat battalions, excluding the AAA battalion.

Displaying only divisional symbols on the situation overlays during August 1944 would give a completely wrong picture of real combat value of the German divisions due to heavy losses as well as often piecemeal commitment of reinforcements sent to Normandy. As an example 12<sup>th</sup> SS Panzer Division could only muster 11 tanks and 300 men fighting as infantry in the Falaise Pocket on 14 August, a strength less than  $\frac{1}{4}$  panzer battalion and  $\frac{1}{3}$  infantry battalion equalling 5% of the nominal strength of the division (Meyer, 2002, p. 69). Replacements of men and material only represented a small percentage of casualties and losses which also was essential for a G-2 to track.

Third US Army used this battalion breakdown throughout the war and it *was adopted in later months of the war by SHAFE [SHAEF] and prescribed for use by all commands* (Koch & Hays, 1999, p. 85). This means that during the critical days of August, 12<sup>th</sup> Army Group G-2 section probably did *not* use this method to describe estimates of the actual enemy combat strength.

Koch says that what a G-2 needs most is *the support of his commander* to help him through his daily routine tasks, and with it, the G-2 can tackle any task.

*Without it, he performs a purposeless task, merely going through a series of staff exercises. . . . He must be confident that the results of his efforts will be respected by his commander, both in terms of interest and attitude and in the degree of utilization of the end product . . . The commander, on the other hand, must be confident that his intelligence chief's work merits such respect* (1999, p. 157).

There are several implications of this. The first is that for intelligence work to be effective there must be time for the G-2 and the commander to develop such a mutual respect. This is initially developed while working together in exercises and/or operations where both have seen the other and developed a mutual understanding of each other's tasks, needs and abilities as well as how things work in practice. Secondly, both G-2 and commander need a mutually acceptable professional and social competence as a basis to respect each other professionally and personally.

#### **6.4 Strategic Intelligence and Military Intelligence**

There is a difference in scope of strategic intelligence and military intelligence. Strategic intelligence has a broader scope as it should cover the capacities of potential adversaries on all

aspects of national strategy, not only military capabilities<sup>25</sup>. It can also have a perspective on all aspects of foreign policy, which military intelligence does not. However, both strategic and military intelligence have some overlap with national (security) intelligence because they have both offensive and defensive aspects.

The model in Figure 1 presents a simplistic presentation of the relationship and different focuses of strategic intelligence and military intelligence. Intelligence organizations were and are organized in national and military intelligence formations. In addition, intelligence organizations operate across the different levels in the organizational hierarchies.

I choose to present today's understanding of organizational levels, although in WWII the *operational level*<sup>26</sup> was not yet used as a term. It is a useful and proven tool to analyse and understand military operations and campaigns. Although there are some connections and connotations, it is important not to confuse tactical intelligence with the tactical level of command. It is also important to recognize that intelligence works across both organizational boundaries as well as organizational and functional levels, i.e. both vertically and horizontally. Intelligence obtained by the use of strategic collection assets might be used for different purposes throughout the different organizational and functional levels down to the tactical level. For example when strategic level signal intelligence (ULTRA) provided

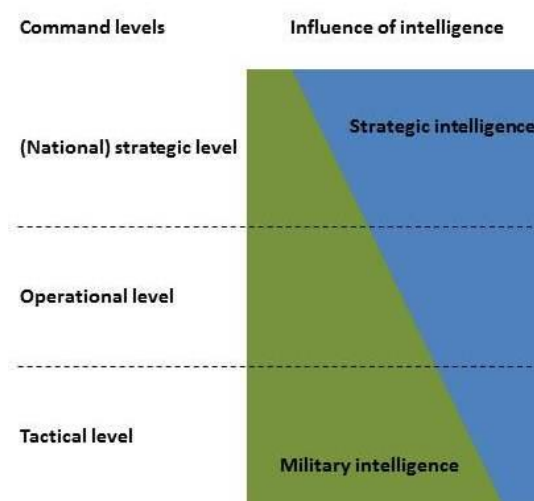


Figure 2 - Relationship between strategic intelligence and military intelligence.

<sup>25</sup> This may differ from peacetime to wartime. I think Lidell Hart explains wartime national strategy well, although he use the term “Grand Strategy”. Grand strategy is the *policy which guides the conduct of war. . . . The role of grand strategy . . . is to co-ordinate and direct all the resources of a nation, or band of nations, towards the attainment of the political object of the war. Grand strategy should both calculate and develop the economic resources and man-power of nations in order to sustain the fighting services. . . . Moreover, fighting power is but only one of the instruments of grand strategy – which should take account of and apply the power of financial pressure, of diplomatic pressure, of commercial pressure, and, not least of ethical pressure, to weaken the opponent’s will. . . . grand strategy looks beyond the war to the subsequent peace* (1991, pp. 321-322).

<sup>26</sup> *Three levels of war are distinguished. At the strategic level, Allied forces are employed . . . in order to achieve the strategic objectives . . . . At the tactical level, battles and engagements are planned and executed within an overall campaign. Between these levels, the operational level, . . . , is positioned. . . . The operational level of war is ‘the level at which campaigns and major operations are planned, conducted, and sustained to achieve strategic objectives within theatres or areas of operations’* (NATO, 2011, pp. 1-3).



warning of the German attack at Mortain it was used for tactical preparations around Mortain, as well as to decide on an operational concept to envelop the forces being pushed into the noose. Conversely military intelligence might accumulate intelligence which might have an impact on the strategic level and be utilized there as well as at the tactical level of command. One similarity is control of strategic intelligence and military intelligence. In the US today it is gathered under the Director of National Intelligence (DNI, 2013b), although many argue this control is weak. During WWII, both US Army Intelligence, Naval Intelligence and the Office of Strategic Services were formally controlled through the Joint Chiefs of Staff (OSS, 1945, p. 2), but a Joint Intelligence Committee (JIC) was established to coordinate intelligence efforts across services as well as *act as a "clearinghouse" for intelligence coming from British agencies* (Benson, 1997, p. 2)<sup>27</sup>.

Although there still is some similarity regarding formal control, there is a huge difference when it comes to dissemination and policy officials' access to intelligence products. Today the CIA has direct access to top officials in the US Administration and *The Central Intelligence Agency (CIA) is responsible for providing national security intelligence to senior U.S. policymakers* (DNI, 2013a). On the other hand

*The Defense Intelligence Agency is a Department of Defense combat support agency. . . providing military intelligence to warfighters, defense policymakers and force planners, in support of U.S. military planning and operations and weapon systems acquisition. The DIA [Defence Intelligence Agency] director serves as principal adviser to the Secretary of Defense and to the Chairman of the Joint Chiefs of Staff on matters of military intelligence* (DNI, 2013a).

I would say that this explains the biggest difference between strategic intelligence and military intelligence. Strategic intelligence is sector overarching, for the ultimately responsible President and his administration, whereas Military Intelligence is sector specific and tends to be directed towards more specific capabilities.

The OSS *became the primary U.S. intelligence agency, for other than communications intelligence (COMINT), during the Second World War* (Benson, 1997, p. 2). However, I would take this to mean that OSS was the leading US agency for foreign intelligence including covert action, because at the tactical command level, they were only one among

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<sup>27</sup> Neither US, nor Allied intelligence coordination in WWII was easy, see for example Benson for a comprehensive study of COMINT/SIGINT administration and coordination (1997).

several agencies and not considered as the most important source of information. Their agents, however, were probably the most important US HUMINT agency in France (of course cooperating heavily with British agents and the Resistance). This legacy of a leading HUMINT agency is visible today as the CIA, OSS' successor, is the US National HUMINT coordinator. Although military intelligence also possesses HUMINT capacities, this implies that strategic intelligence both had and has a leading role in the utilization of HUMINT capacities.

One major task for military intelligence is to support planning and assessment of military operations (JCS, 2003, pp. IV-1 to IV 24). Therefore it has more need of detailed intelligence, i.e. combat intelligence and tactical intelligence, than strategic intelligence. This is another difference.

I have summarized similarities and differences regarding intelligence sources and types of intelligence in Table 1 below; see section 7.2.

### 6.5 The Intelligence Cycle

A model of an intelligence cycle has been developed to explain typical intelligence processes and management of these. The intelligence system of an organization such as an Army and Army Group HQ will typically have a perpetual work process which can be viewed as a cycle. Information needs will emerge more or less constantly in line with operations, and the intelligence organizations have to cover the needs and close the information gaps according to priorities, with the means available.

Sir David Omand presents a refined model of the intelligence cycle in his study on modern intelligence (Omand, 2011, p. 119) and the development and different approaches to defining this model is also described in his latest work (Omand, 2012a). According to Omand, there are some smaller differences between different US and British agencies' models, e.g. regarding where exploitation of collected information enters the cycle. However, the basics are the same.

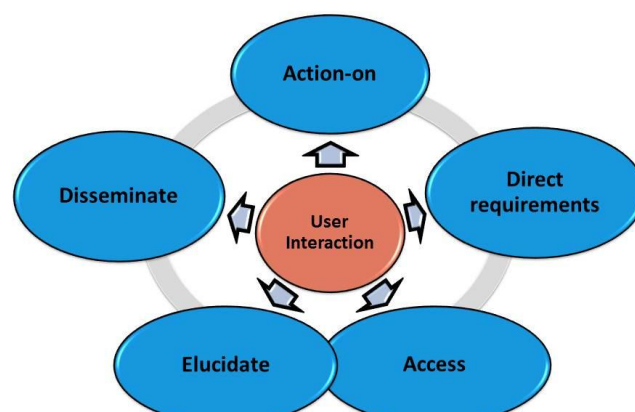


Figure 3 - The Intelligence Cycle. From Omand *Securing the State*, p. 119.

The strength of a 4-6 step cycle model is that it is a generalized picture which sufficiently explains the process utilized by many western intelligence agencies to produce intelligence information. However, it is simplistic and can be criticized for omitting the often interactive processes between users, management/leadership, collection and processing/analysis divisions. It has also been pointed out that the model can give a false impression of an end user directing intelligence production, as the end user or policymaker seldom has the competency or organizational assets to direct intelligence agencies. It can also be said that there will necessarily be some kind of direction/management in each step of the cycle as well. The intelligence cycle will exist on several levels in an organizational hierarchy, e.g. at the army group, army, corps and division level, etc. Therefore the cycle model is a useful tool to have to visualise the intelligence processes foremost in one's mind for all actors in intelligence agencies.

US WWII doctrine does not present a "cycle", but all the steps in this cycle can be gleaned chronologically from the chapters in FM 30-5 *Military Intelligence*. There were *functions and organization, collection, collation, evaluation and interpretation, and dissemination* (War\_Department, 1940, p. v)<sup>28</sup>.

Is there a significant discrepancy between Omand's step of *Action on* and the factor of *User interaction* and the WWII era field manuals? It can be argued that it is implicit in the purpose of intelligence itself, to use it to guide action/operations. It is also emphasized by FM-30-5 and Koch that intelligence has no value in itself, only when it is disseminated to be used in planning and directing operations. Koch for example mentions a situation where a piece of information surfaced that General Patton and Third US Army acted on directly (1999, pp. 77-78). British Intelligence (Ultra) had intercepted a message showing that the German 7<sup>th</sup> Army was planning an attack towards Avranches via Mortain to cut off the US breakthrough along the Atlantic coast. This intelligence was acted on and a division was immediately detached from Third US Army to strengthen First US Army around Mortain.

When it comes to *user interaction* my assessment is that the most interesting perspective is to consider how General Bradley and 12<sup>th</sup> Army Group's G-3 Operations section utilized intelligence and interacted with the G-2 Intelligence section. As a reference, it might also be interesting to see how General Patton did the same.

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<sup>28</sup> See also (Koch & Hays, 1999, pp. 33, 132).

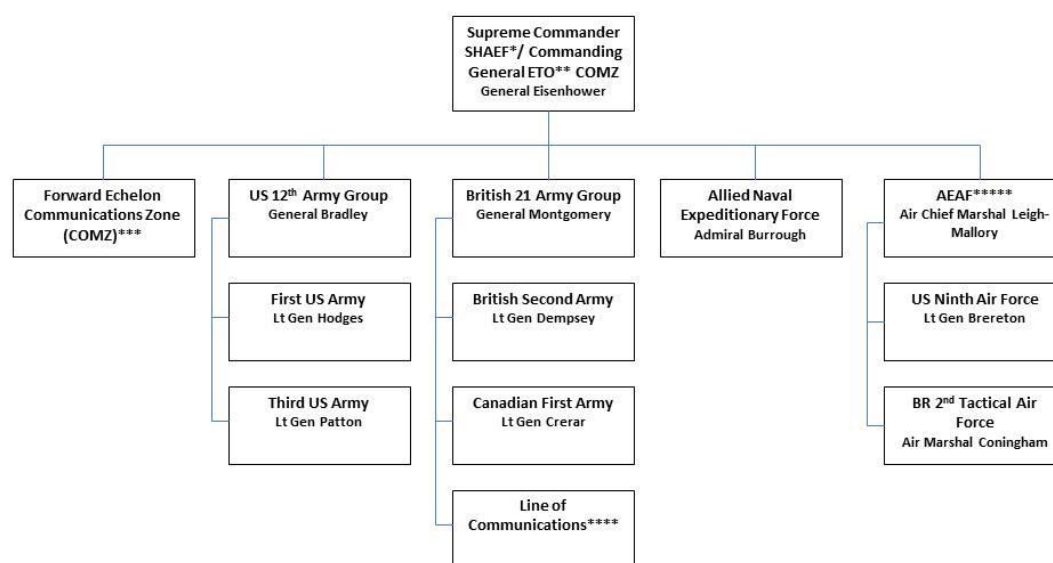
Summing this up, there is today a more or less equivalent picture of the necessary process in an intelligence staff system as 70 years ago. There are nuances, but the basics are much the same. I therefore conclude that the cycle or the above mentioned principles and functions are valid factors to use when I evaluate the intelligence work by 12<sup>th</sup> Army Group and Third Army below. From the discussion in section 6.3.2 I conclude that a rather important part of the cycle is how the G-2 and the commander work together and how the commander utilizes and acts upon intelligence.

### 6.5.1 Expanding the Traditional Intelligence Cycle Model

In this chapter I will expand upon the traditional intelligence cycle by adding the command levels and the command relationships in the relevant period of the Normandy Campaign and then outline the different sources of intelligence.

#### 6.5.1.1 Allied Command Structure August 1944.

The command relationships developed from the initial beach assault on D-Day 6 June and onwards. On 1 August 12<sup>th</sup> Army Group and Third US Army became operational on the continent.



\*Supreme Headquarters Allied Expeditionary Force—US Strategic Air Force and BR Bomber Command were under operational direction of the Supreme Commander, but not under command. However, this direction could call upon direct support to ground operations “when necessary”.

\*\*Commanding General European Theater of Operations - An administrative position also held by General Eisenhower beside the position as Supreme Commander.

\*\*\*Communication Zone—An administrative organization to supply the US/Allied Forces on the continent.

\*\*\*\*Line of Communications - An administrative organization to supply the British/Allied Forces on the continent.

\*\*\*\*\*Allied Expeditionary Air Force; this command also had three additional British air groups under command, but these were not under command of the Supreme Commander.

Figure 4 - Allied Chain of Command for the Normandy Campaign 1 August 1944. Source: (Ruppenthal, 1995, p. 225).

Each Army had several army corps, which again had several divisions under their command. 12<sup>th</sup> Army Group received intelligence reports from SHAEF, 21 Army Group, its two armies, from the army corps below each army<sup>29</sup>, and from the Allied Expeditionary Air Force when tasked on air reconnaissance. For our study, the relevant command levels are those of 12<sup>th</sup> Army Group and its immediate subordinate units as intelligence is mainly gathered and disseminated bottom up. I also need to look at what kind of pieces of intelligence came in from above and laterally. This would typically be from ULTRA and assessments from 21 Army Group G-2 as well as immediate reports from PHANTOM.

However, the most interesting analysis is regarding what pieces of intelligence were presented to, and what information was actually available for General Bradley (Commander 12<sup>th</sup> Army Group). To some extent it is also interesting to look at what pieces of intelligence was available to Patton as the crucial decision of halting Third Army was made within the scope of the command dialogue between Bradley and Patton. For an overview of intelligence services available to the Supreme Commander, see Appendix C – Intelligence disciplines available to the Supreme Commander.

#### **6.5.1.2 Main sources of intelligence in 12<sup>th</sup> Army Group**

A study made for CIA on different sources of US Combat Intelligence in 12<sup>th</sup> Army Group during WWII lists the sources according to their importance (Kirkpatrick, 1993)<sup>30</sup>:

- Prisoners of War
- Air Reconnaissance (aerial reconnaissance and photography)
- Signal Intelligence (SIGINT)
- Captured Documents
- Agents/Human Intelligence (HUMINT)

This study was about Combat Intelligence and not Strategic Intelligence, and might thus omit some sources like e.g. ULTRA. The report does not mention ULTRA at all, which is strange due to the fact that this source was highly regarded by at least Patton, and probably Bradley and Hodges<sup>31</sup> due to its high reliability and importance as a guide for other intelligence.

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<sup>29</sup> From PHANTOM patrols following each corps. Explained further below.

<sup>30</sup> Kirkpatrick refers to Lee's report (1945) which also contains pieces of information on the use of civilians as sources, as well as other details e.g. on psychological operations.

<sup>31</sup> Commanding General in First US Army after General Bradley; deputy commander while Bradley was CG.

Probably Ultra material was taken out of the equation on purpose due to security issues<sup>32</sup> as this study involved many personnel in G-2 sections on corps and division level who had no access to Ultra. Ultra was also covered in a separate evaluation by personnel in the Special Liaison Units.

The utilization of agents varied greatly, while Third US Army used them to good effect (Koch & Hays, 1999, p. 83), First US Army's G-2 thought little of OSS, and while still in command of First Army, *Bradley ordered all OSS personnel, except Captain Stuyvesant Wainwright's counterintelligence section, to leave The First Army area* (Hogan, 2006, p. 83) and move to 12<sup>th</sup> Army Group HQ. This might also have been based on an assumption that the OSS team could be better utilized at Army Group to coordinate HUMINT. However, I have found no indication in the 12th Army Group's after action reviews to support this. One should bear in mind that the OSS was the new sibling in the US intelligence family, while US Army and especially Navy Military Intelligence were the grown-ups. Military Intelligence (MI) had preponderance over OSS, and when OSS/London was established they were only allowed to liaise with MI6 in the beginning. However, before the invasion of France they were picking up on intelligence operations as well. Therefore there might have been bad blood over turf wars between MI and OSS. Sometimes agents were the only available source to base tactical decisions on (Lee, 1945, p. 36), and thus the utilization of them should be considered in the analysis.

### 6.5.2 The Expanded Intelligence Cycle and 12<sup>th</sup> Army Group

When you put the intelligence cycle within the relevant organizational hierarchy, and also insert the main intelligence sources in one single model, it looks like this:

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<sup>32</sup> Ultra material was destroyed within 48 hours of receipt in the Army Group and Army HQs of security reasons. These papers are either at the British National Archives at Kew and, possibly at NSA's archives, if available in the US.

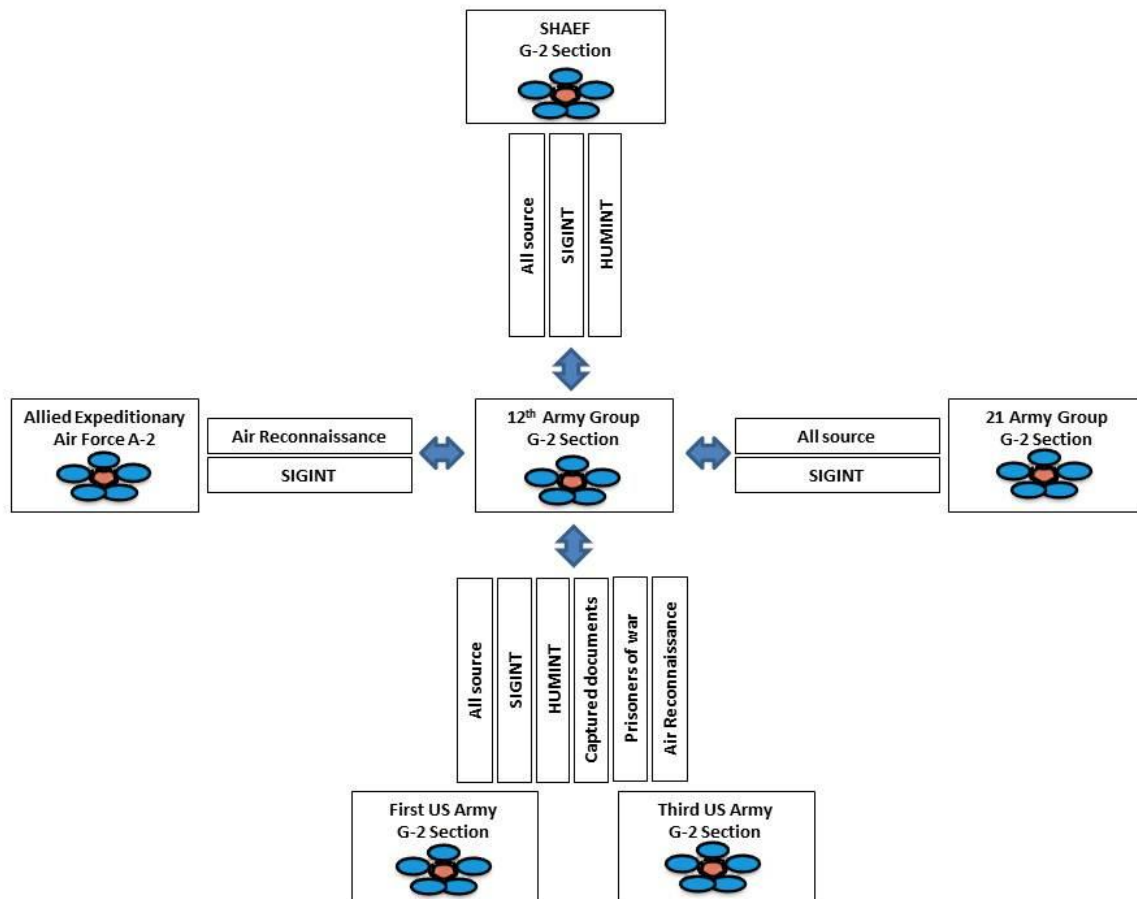


Figure 5 - 12th Army Group in the Allied Intelligence System

What I want to illustrate with this is that the intelligence cycle, depicted by the red and blue circles of Sir Omand's cycle, happened at all levels and in all organizations presented in the model. Although the 12<sup>th</sup> Army Group's cycle is the focus of my study, it is relevant to note that the cycle should be imagined as a process in both the specific parts of the system as well as in a system of systems.

I have illustrated the main sources of intelligence with the oblong boxes. Messages from these sources sometimes sifted through the system without much alteration from the original disseminating unit. Although intelligence was preferably collated in "all-source" assessments (Koch & Hays, 1999, p. 139), for some sources information was analysed and collated in single source reports, such as signal intelligence summaries (SIGISUMs)<sup>33</sup> (Howe, 2010, p. 169). I have included "all-source" boxes, which represents the intelligence reports and summaries of distilled information from all sources available to the G-2 section of the issuing HQ.

<sup>33</sup> This is just an example of single source reports, as the SIGISUMs started only on 1<sup>st</sup> September 1944.

The main sources of intelligence from the lateral commands were typically collated all source or SIGINT from 21 Army Group and Air Reconnaissance, and SIGINT from the Allied Expeditionary Air Force<sup>34</sup>. There were also instances when Air Force SIGINT intercepted messages of interest to the ground forces, which then received this by SIGINT channels. SIGINT has its own boxes because there were special arrangements for dissemination and transmission of this for security precautions. Actually, General Montgomery, with 21 Army HQ, was de facto commander of Allied ground forces<sup>35</sup> (Pogue, 1954, p. 45) until the Supreme Commander General Eisenhower took over that role also on 1 September 1944. SHAEF Forward HQ element had still not moved from England to Normandy by the time of the Falaise Pocket fighting<sup>36</sup>. However, by 7 August Eisenhower had established a small advanced command post at Tournières ca. 20 kilometers southwest of Bayeux (Pogue, 1954, p. 276).

Although these command arrangements probably had little impact upon the dissemination of intelligence, they may have had an impact on the critical command decision which is the focus of this study. Montgomery was de facto commander of ground forces although during August Bradley was nominally a lateral commander. Montgomery's sometimes elevated attitude towards Bradley and Americans in general, might have influenced Bradley's attitude towards Montgomery; this will be further discussed later. The de facto command relationship between 12<sup>th</sup> Army Group and 21 Army Group could justify adjusting the model above and placing 21 Army Group in the place of SHAEF. I will keep the lateral arrangement because it was the formal arrangement, and keep in mind for later discussion this particular issue on the relationship between the Army Group commands and their generals.

The intelligence relationship between SHAEF and 12<sup>th</sup> Army Group HQ was one where 12<sup>th</sup> Army Group pushed collated tactical intelligence up and received strategic and operational intelligence down. SHAEF had control of OSS and also liaison up to US and British strategic intelligence services, and thus it was mainly all-source from these as well as SIGINT and HUMINT single source which flowed from SHAEF to 12<sup>th</sup> Army Group. However, because

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<sup>34</sup> The Allied Naval Expeditionary Force was also a relevant force in the Normandy Campaign, but the intelligence liaison with 12<sup>th</sup> Army Group concerning this study was not relevant.

<sup>35</sup> However, Montgomery was never given the official title Ground Commander.

<sup>36</sup> SHAEF Forward and Main HQ elements had moved in steps from England to France, and from Normandy to Versailles between D-day 6 June and 1 September 1944. See Pogue's *Supreme Command* for a review on this issue (1954, pp. 275-278).



Montgomery was de facto commander of Allied ground forces and as there was closer British-British liaison between 21 Army Group HQ and British strategic intelligence services, 12<sup>th</sup> Army Group probably received more strategic intelligence products of tactical value via 21 Army Group than via SHAEF<sup>37</sup>, especially with regard to Ultra.

I will use this model as a framework for my subsequent analysis and assess the available intelligence reports and other relevant literature according to the factors discussed in this section and 6.3.4 above, e.g. location, classification and battle damage assessment, etc.

## 6.6 Summary on Intelligence Theory

The term “intelligence” has been used to describe several dimensions of this phenomenon; 1) refined information itself; 2) the process of directing, collecting, analysing and collating, and dissemination of this information; 3) organization; and 4) categories of intelligence such as espionage, counterintelligence and covert action. However,

*. . . the essence of Western intelligence is: providing information and forecasts on which others take action, not taking action itself. . . (Herman, 1996, p. 56).*

Combat intelligence is the main category of interest for this study. The main task for combat intelligence is to present analysed and collated information to the commander and staff to optimize his decisions and their planning and direction of operations. Combat intelligence has three main elements; the enemy, terrain, climatic conditions, and how the last two can influence the enemy. This information has to be timely to guide decisions so they are faster than the enemy, i.e. get inside the enemy decision cycle; and accurate enough optimize the use of available forces, which is to get as much effect as possible out of one's forces.

I will use the factors of US WWII doctrine and those presented by Herman to try measure the intelligence effort by 12<sup>th</sup> Army Group's staff, i.e. generally that it provided accurate intelligence of good quality on enemy forces and their possible lines of action<sup>38</sup>, and how terrain and weather affected them. I will also use the factors from the intelligence cycle to evaluate the intelligence effort. Other important factors discussed by Lowenthal and Koch that I will use are the personality of the commander and the relationship between the commander and his G-2, which heavily influences how the commander utilizes intelligence.

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<sup>37</sup> This is a deduction from different sources, as I have found no source directly explaining the level and type of intelligence products flow between the Allied staffs.

<sup>38</sup> I.e. today's COAs.

## 7 National Security Intelligence and Military Intelligence in WWII

In the period between WWI and WWII both the USA and the British had neglected their intelligence services (Hinsley et al., 1979, pp. 3-85) (MacPherson, 2003, pp. 1-64). The USA had no National Strategic intelligence service like the British Military Intelligence Branch 6 (MI6)/Secret Intelligence Service (SIS) at all. It was not until June-July 1941 that the office of the Coordinator of Information (COI) was established (Benson, 1997, p. 1)<sup>39</sup>. Until then, it was the Army Military Intelligence Division (MID) and the Office of Naval Intelligence (ONI) who *were to have cognizance over the services' . . . espionage/counterespionage and sabotage matters . . . overseas* (Benson, 1997, p. 1)<sup>40</sup>. When the US Office of Strategic Services (OSS) was established in the European Theater of Operations (ETO) it initially only functioned as a liaison body to MI6 in London as US Military intelligence was in lead. It was the British who first expanded and re-organized their services, and they had a preeminent position in the Allied intelligence cooperation.

National security intelligence and military intelligence organizations should preferably not have much overlap, and the national Joint Intelligence Committees (JICs) with the Anglo-American Combined Intelligence Committee (CIC) was tasked to coordinate, as well as synthesize, information from the different intelligence services. SHAEF had also a JIC to coordinate efforts and synthesize information (Schow et al., 1945, p. 2). However, the services would have some overlap and operate on the same turf. To overcome some of the resulting coordination challenges, OSS in the ETO was placed under General Eisenhower, Supreme Commander ETO.

Immediately before and during WWII there developed a trend for “*national*” collection among the allies, that foreign intelligence collection by agents was done by civilian controlled organizations, i.e. mainly by the British Secret Intelligence Service (SIS) and, when it was established, by the US Office of Special Services (OSS) (Herman, 1996, p. 23). Although the military services continued with SIGINT and attacks on the lower grade German ciphers, the British had established the civilian Government Code and Cypher School under the head of

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<sup>39</sup> COI was renamed the Office of Strategic Services (OSS) in 1942.

<sup>40</sup> *On or about 24 June 1940, President Roosevelt made broad foreign intelligence assignments. The FBI was to collect intelligence and conduct counterintelligence operations in the Western Hemisphere [the Americas], while all other foreign intelligence was to be the responsibility of the Army and Navy. To fulfill this role, the FBI formed the [US] Special Intelligence Service (SIS), which operated in Latin America throughout the war* (Benson, 1997, p. 1).

SIS which attacked the German Enigma ciphers used by all German military services (Herman, 1996, p. 24). However the US did not have this centralised “national” approach towards SIGINT until after WWII<sup>41</sup>, keeping *its separate Army and Navy [SIGINT] organizations* (Herman, 1996, p. 24).

As well as some central control of some of the collection resources, the British and the US also saw a need for national level intelligence assessment, where analysis of ground, naval, and air forces, as well as political and economic factors could be integrated (Herman, 1996, p. 25)<sup>42</sup>.

*The lack of any central assessment machinery had provoked the precipitate British guarantee to Poland in March 1939, just as it was the cause of the United States’ Pearl Harbour disaster in 1941. It was becoming apparent by 1939 that Germany could not be understood through purely departmental analysis* (Herman, 1996, p. 25).

The British was a step ahead of the US with regard to organizing for a national level assessment, as the OSS was formed during the war and with a large amount of support from the British. In the European Theatre of Operations, it was under General Eisenhower in SHAEF that the lines of communication from the US intelligence services were gathered. SHAEF’s G-2 section was also organized to be able to provide all source assessments for the Supreme Commander.

### 7.1 Operational Level Intelligence

It was under General Eisenhower that all lines met for the planning and management of the campaign in North West Europe. The efforts of air forces, ground forces, naval forces, and for the US structures also intelligence and Special Forces, were all coordinated by SHAEF under Eisenhower. SHAEF was the epitome of the operational level of war. OSS’ mission in London, OSS/London, was responsible for OSS’ operations in the ETO and placed under Eisenhower. Therefore, I would argue that OSS/London belonged to the operational level,

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<sup>41</sup> After the war, many Western countries followed the British example of centralized control of SIGINT due to their WWII successes.

<sup>42</sup> Of special interest for a study comparing Axis and Allied intelligence, is that this approach with integrated assessment *contrasted sharply with German, Italian and Japanese intelligence. Private intelligence services had proliferated under Hitler, and in an official British estimate in 1945 of “Why the Germans lost the War” one of the reasons given was the fragmented state of German intelligence, with no means of collating and appreciating it below the level of head of state. Japanese wartime intelligence was equally inefficient and unsystematic* (Herman, 1996, pp. 25-26)

although OSS as such belonged to the strategic level. OSS/London was responsible for North West Europe, coinciding with General Eisenhower's Area of Responsibility (AOR)<sup>43</sup>.

Initially, Chief of Staff Supreme Allied Command (COSSAC) had no independent means of direction or collation of intelligence (Schow et al., 1945, p. 12). When General Eisenhower took command and the staff expanded and was renamed Supreme Headquarters Allied Expeditionary Force (SHAEF), it also received operational intelligence sections for direction, collation and dissemination of intelligence (Schow et al., 1945, pp. 13-17, 20-32). Although OS was placed under SHAEF control, it is difficult to ascertain how much control SHAEF actually projected. OSS/London cooperated closely with its British colleagues in MI6, which to a large extent had the leading role in planning and direction of intelligence operations. Other information than from OSS came from sources controlled by subordinate commands or higher echelons. However, the operational level was an important hub for coordination and direction of intelligence efforts.

## 7.2 Relations between intelligence levels

It was in the planning and preparation phase for the landings in Normandy that support from the strategic intelligence services was absolutely necessary. *After the invasion of France, however, the main sources of information were from forces in the field* (Schow et al., 1945, p. 12). However, although the forces in the field were the main sources, they would generally only provide information regarding their immediate tactical situation. Regarding movement of operational and strategic reserves, it was information from agents and SIGINT from the strategic level, as well as aerial reconnaissance that would provide most of the intelligence information for use at the operational level. Strategic level SIGINT, ULTRA, would also provide most of the information on German intentions for the campaign, as well as provide a valuable supplement on enemy OOB. However, after the 20 July assassination plot against him, Hitler became increasingly paranoid and had very little trust in his generals' loyalty. Therefore, he would not provide Field Marshal von Kluge<sup>44</sup> with any long term objectives or

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<sup>43</sup> There were other OSS missions operating in Europe, such as the Mediterranean Theater of Operations (MacPherson, 2003, pp. 1-2). For organization of command relationships in Allied Combined Operations, see Appendix I.

<sup>44</sup> Von Kluge was Commander in Chief West; responsible for France, Belgium, the Netherlands and Luxembourg. When Rommel was wounded in July, von Kluge also took over Rommel's command of Army Group B in Normandy, with Seventh Army and Fifth Panzer Army. Hitler decided to remove von Kluge on 16 August and replace him with Field Marshal Model, because of confessions after the failed assassination plot

guidelines for the campaign in France, only immediate orders (Pogue, 1954, pp. 201-203).

Because of this, even ULTRA would have difficulties helping to foresee German intentions in France, although valuable information was still gleaned from this source.

The point here is not to try to downplay the importance of intelligence work at the operational level, nor at the tactical intelligence level once forces were in contact with the enemy, but rather to show that there was important intelligence cooperation between the strategic, operational and tactical levels of command and that strategic intelligence still had an important supplementary role to the operational and tactical level intelligence.

Macpherson draws upon several works on OSS' operational history in WWII and presents arguments both for its strategic as well as its operational perspective and value. I interpret him thus, that OSS had a strategic focus, but it could to some extent be viewed as *a handmaiden of tactical military operations rather than a strategic intelligence arm* due to its *susceptibility to Britain's experimentation with "shadow warfare"* (MacPherson, 2003, pp. 6-7). Rather than concluding on either or, I would say that this shows that intelligence most often spans several functional and organizational levels. These levels are mostly constructed terms to help analyse and explain military and political phenomena of war, not to be absolutes.

Some dissimilarities would be that national security intelligence would for example work with issues like diplomatic and military relations between Germany and her allies, the position of neutrality of Turkey and Spain, infiltrate Germany to find out about her war economy and industry, weapons development, etc.; while Military intelligence would be more concerned with intelligence to prepare for future operations, e.g. German defences in Normandy and along the Siegfried line<sup>45</sup>, approaches and passages across the Seine and the Rhine, etc.

However, National intelligence would complement Military intelligence and in some cases deliver much of the targeting information on objectives such as German defences in Normandy, V-1 and V-2 launch sites, German industry, etc. Much of this stems from the fact that the intelligence organizations had control of different collection resources. Although before WWII MI6 used civil aircraft for covert photo reconnaissance of German industry, it was military units and aircraft that did this type of collection during the war.

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which *heavily implicated* von Kluge (Pogue, 1954, pp. 212-213). 19 July Kluge committed suicide en route to Berlin.

<sup>45</sup> On the German border to France and the Low Countries.

## 8 Intelligence organization and process in 12<sup>th</sup> Army Group

### 8.1 12<sup>th</sup> Army Group G-2 section and General Bradley

The mission of the G-2 section's *Intelligence Branch* was (Lee, 1945, p. 7):

- a. *To keep the Commanding General, 12<sup>th</sup> Army Group, and the other staff sections informed of the enemy's capabilities.*
- b. *To keep each Army informed of the enemy situation on the rest of the front.*
- c. *To keep SHAEF informed of the enemy situation on the 12<sup>th</sup> Army Group front.*

Reading point “a” literally, it means that the G-2 section was responsible for keeping the Commanding General (CG) informed on the enemy's courses of action and the specific possibilities within these. However, the doctrine had a much wider definition of the intelligence that should be provided to the CG. Strength, level of training, morale, equipment and material, etc., in addition to how terrain and weather influences enemy capabilities, to mention the most important items. The term “enemy situation”, used in point “b” and “c” is a wider term which could contain all of what the doctrine says. If the commander was presented only a slim intelligence update each day (concerning both direction and dissemination), the rather narrow instruction in point “a” above might be part of the explanation if this was the case.

However, looking at the regular reports made and overviews produced in the situation room, the CG had a lot of intelligence available. There were both regular and special intelligence updates held for the CG. The question is how he utilized them, and how and if Bradley involved his staff and G-2 in command decisions? Bradley used his senior army group staff

... *“probably less than any other important general in Europe”, dealing directly with army commanders through personal visits by liaison plane* (Hogan, 2006, pp. 123-124).

While it is good practice to see subordinate commanders face-to-face to discuss important matters and have common situational awareness among commanders, and make sure that tasks and missions are understood, it is not good practice to let subordinate staff bypass your own key staff officers such as COS, G-2 and G-3. This was often the case when Bradley left as CG from First US Army (FUSA) to CG 12<sup>th</sup> Army Group (Hogan, 2006, p. 123). It is natural to keep good rapport with old brothers-in-arms, and it can give you valuable information as commander on the situation within that unit (FUSA). On the other hand, it can also lead to lost communication with your own staff resulting in different views of the

situation because the staff is not updated with the same information from the subordinate command. Also the closest staff officers become more reserved with regard to discussing issues at hand.

Koch said that the relationship between commander and G-2, the “user interaction”, is crucial for a G-2’s work<sup>46</sup>. Pogue disclosed strong indications that this was not the best in 12<sup>th</sup> Army Group<sup>47</sup>:

*Now the funny thing . . . is that the last G-2 report written before the attack came from General Bradley's headquarters. And it began with a very flashy beginning: "The enemy has had it." You got the impression that within a few weeks the enemy would roll over and play dead. I asked why that was written? It was very interesting reading, very exciting, showing how the German Army had deteriorated to the point that it could no longer act. General Sibert told me that no one was reading his G-2 Reports, so they decided to put a little "umph" into them. And they got a well-known editorial writer . . . they asked if he couldn't make the reports a little more exciting. And so he made it exciting: "The enemy has had it." (1980, p. 4).*

Now, this strongly indicates that the G-2 did not feel his work was attracting as much attention as he thought it deserved; again indicating that a relationship based on respect and confidence between commander and G-2, that Koch argued was crucial, was absent. Maybe Bradley who was a veteran of many operations did not look upon Sibert with as much respect as he yearned for, either because he was less experienced or not as proficient as Bradley wanted. There are indications supporting the last option discussed in section 8.4 below.

## 8.2 Organization of 12<sup>th</sup> Army Group G-2 Section

The G-2 Section was divided in *Administration Branch* handling personnel matters, *Intelligence Branch* which was at the heart of the section, *Counter-Intelligence Branch*, and *Foreign liaison Branch* which liaised with Allied units and HQs and became increasingly involved as the liberated area increased (Landon, 1945, p. 14).

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<sup>46</sup> Ref. section 6.3.4.

<sup>47</sup> Pogue looked into the background of the failure to warn about the German counteroffensive in the Ardennes on 16 December 1944. Although this occurred after the Normandy Campaign, his findings are revealing about the psychosocial working conditions in 12<sup>th</sup> Army Group Staff, and between the allied higher staffs.

### 8.2.1 G-2 Section, Intelligence Branch

The Intelligence Branch was responsible for direction, analysis and collation and dissemination of information, including aerial reconnaissance and terrain studies. It also briefed the CG and special staff. Initially it contained an air subsection, but this grew quite large and was detached as a separate G-2 (Air) Branch, responsible for coordinating aerial reconnaissance and interpretation and dissemination of photos and reports (Landon, 1945, pp. 14-15). Although the G-2 (Air) Branch was important, and almost as large as the Intelligence Branch, it was the latter which performed all-source analysis and was in direct contact with the CG. Therefore I focus on the Intelligence Branch for the rest of this study.

*The Chief of the Intelligence Branch was left free of all organizational and administrative matters<sup>48</sup> so that his full time and effort could be devoted to the study and analysis of the enemy situation. . . . the Chief of Branch was constantly available to advise the Commanding General on the latest development of the enemy situation . . . . (1945, p. 7).*

This sounds like a wise concentration of intelligence analytical power and staff working at the echelon where they could be of best use to the CG and his Chief of Staff (COS), as well as for close coordination with the G-3 Operations Section. The number and type of officers and NCOs in 12<sup>th</sup> Army Group's Intelligence Branch is given below:

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<sup>48</sup> The Executive officer at the Tactical HQ handled matters exclusively concerning the G-2 section, and the G-2 Section's Administrative Branch at Main HQ handled general matters related to the G-2 section.



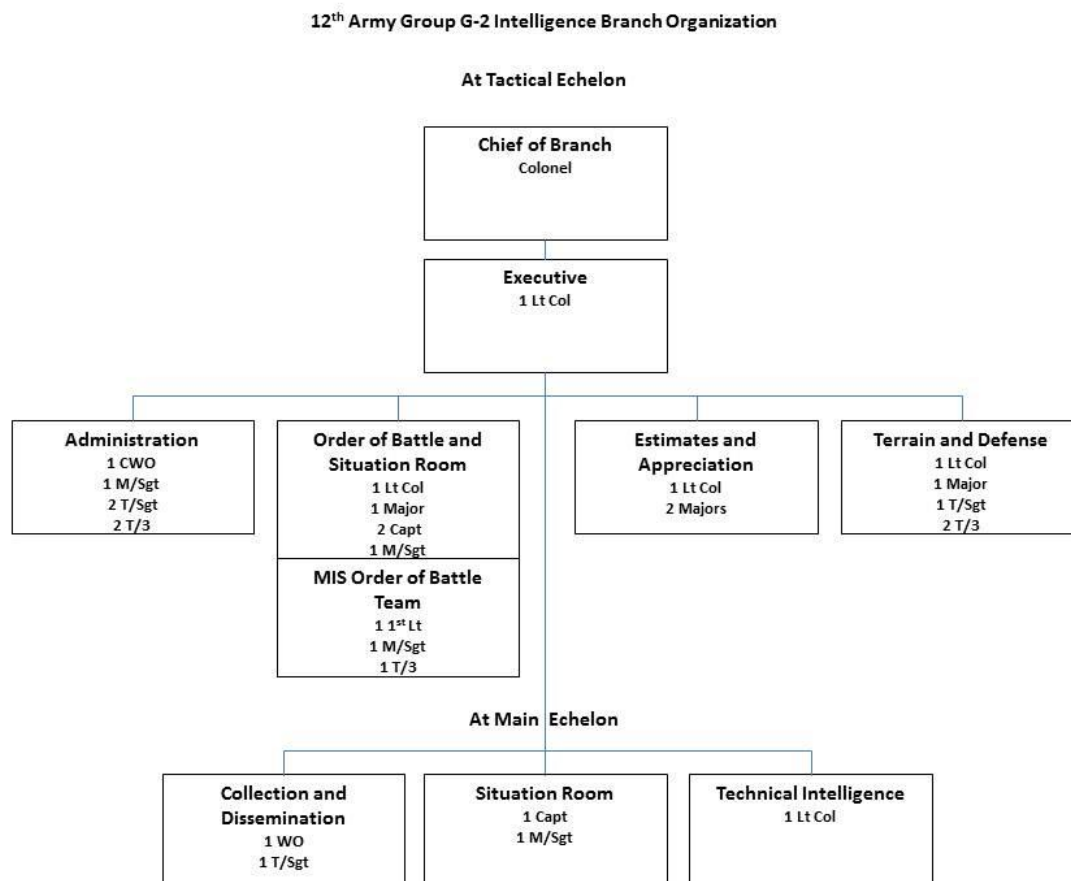


Figure 1 - 12th Army Group Intelligence Branch Organization - divided between HQ Tactical- and Main Echelons. Source: (Lee, 1945, p. 6).

The intelligence sent from the Armies up to Army Group was analysed and collated in reports which were then disseminated vertically and laterally. This returned to the Armies and their subordinate commands an overall picture of the situation in neighbouring sectors.

*Armies, Corps and divisions were of the opinion that the intelligence they passed on up to the immediately higher headquarters was well handled in the reports (Lee, 1945, p. 57).*

I take this comment to indicate that what went up to 12<sup>th</sup> Army Group was usually collated properly. However, as discussed below in section 8.4, both Pogue and Koch point out that there were sometimes very different opinions on what the proper analysis of intelligence information should be. What is less obvious is what level of analysis and “value-added” came back from Army Group. Urgent SIGINT such as Ultra would be handled by special personnel, and this intelligence was “hand carried” promptly, and/or briefed to key personnel in special briefings ref. section 8.5.1.

## 8.2.2 Intelligence Branch' Services and Products

### 8.2.2.1 Daily Briefings of the Commanding General and his Staff

Each morning at 0915 the Commanding General (CG) and his staff received an open update brief<sup>49</sup> on the situation. The notes for this brief were typically 2-3 pages, with the G-2 content a half to two-thirds page. Immediately after this, as well as once later in the day, the CG received a *special intelligence* brief only for vetted personnel; see also section 8.5.1 for further details. There were G-2 officers on call between 0800-2400 in the *Situation Room* in the HQ Tactical Echelon to brief the CG and visiting liaison officers when necessary (Lee, 1945, pp. 8-9). The Situation Room was also the central place for updating the rest of the staff during planning and for direction of operations, etc.

### 8.2.2.2 Daily Periodic Report

The daily intelligence reports were typically 2 pages, sometimes with an *Enemy Order of Battle* annex either giving a status with a complete overview or items of special interest. It closed each 24-hour period at 1200, was written during the afternoon and evening of each day, and dispatched during the night (Lee, 1945, pp. 10-11). These reports were basically a collation of information, and contained very little analysis and assessments of the enemy situation. It was first in the *Weekly Intelligence Reports* that there was any analysis of the possible enemy courses of action and capabilities.

### 8.2.2.3 Weekly Intelligence Report

The Weekly Intelligence Reports contained the following; *General Summary* discussing enemy capabilities, *Enemy Operations* on the front of 12<sup>th</sup> Army Group, *Enemy Dispositions* i.e. changes of enemy forces on each of the Allied Armies' fronts in Western Europe, *Enemy Strength on Western Front* i.e. complete OOB of German divisions, *Enemy Supply and Transport*, *Enemy Defense Trends*, *Visual Reconnaissance Summary* i.e. a summary of German rail and road movements, *GAF Activity*, and *Additional Intelligence Notes* (Lee, 1945, pp. 11-12). Weekly intelligence summaries based on Ultra were also produced (Murnane & Orr, 1945, p. 4). The Armies in 12<sup>th</sup> Army Group meant that (Lee, 1945, p. 17):

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<sup>49</sup> Written briefing notes for the open briefings throughout August 1944 are available from 12<sup>th</sup> Army Group files. The Daily Periodic Reports are also available, but I was unfortunately unable to locate the Weekly Intelligence Reports in the archives, neither from 12<sup>th</sup> Army Group or SHAEF files (where I found the Daily Periodic Reports). The only relevant 12<sup>th</sup> Army Group intelligence estimate I found was the one attached to Letter of Instruction (LOI) Nr 1 29 July 1944, see Appendix N. If the weekly estimates still exist in the archives, these estimates and analyses would be very interesting to locate for future research, both the "open" estimates and especially the estimates based on special intelligence, Ultra.

*. . . the Periodic Report was of more value than the ISUM [Intelligence Summary, i.e. the weekly report] due to the inclusion of additional material and the comparatively small difference in time of receipt. . . .*

*It is stressed that the Armies need and desire some form of weekly reports from higher headquarters . . . which outlines enemy capabilities along the entire front.*

As a summary on reports, my assessment is that there was a clear need of both products, but the outline and dissemination could have been improved.

#### **8.2.2.4 Terrain studies**

The intelligence branch in 12<sup>th</sup> Army Group HQ had a *Terrain and Defense Section* to develop studies and provide briefings. Its primary mission was (Ingersoll, 1945, p. 37):

*. . . to keep the Commander and Army Group Staff informed regarding the effect of enemy controlled terrain, and of enemy defense installations which modify that terrain, on our own and on the enemy situation, and on enemy capabilities.*

After moving to Normandy from London, the section struggled to adapt to field conditions and get their working arrangement organized functionally. Their first terrain briefing for General Bradley was *at the time of the St. Lo Breakthrough*, i.e. around 25 July 1944, and it covered *the southern limits of the BOCAGE* (Ingersoll, 1945, p. 15) to the East of Brittany beyond to the approaches to Paris. It focused on the area of operations for 12<sup>th</sup> Army Group. Therefore, it most probably covered the area of operations up to Argentan, as the boundary between 12<sup>th</sup> Army Group and 21 Army Group was set about 10 km south of Argentan, ref. (Allen, 1944o, pp. 1-2, Map). The map which was used for this presentation was afterwards moved to the G-3 section *where it served to familiarize the whole staff with terrain capabilities . . .* (Ingersoll, 1945, p. 16).

The Terrain and Defense section focused on “going” in the operations area (i.e. density and type of obstacles for cross-country movement), watershed divides, ridgelines, roads, and built-up areas (Ingersoll, 1945, pp. 14-15). There are two important conclusions we can make from this; one is that Bradley and his staff were updated on the terrain which his armies were moving into; two is that the terrain around Argentan is outside the bocage area with its thick berms with hedges on them. Thus, fighting around Argentan would bring an advantage to US troops as it would be relatively easy to employ air power and artillery, compared to the close

terrain in the bocage<sup>50</sup>. The US troops had air supremacy and a huge advantage in artillery, both in number of guns as well as in available ammunition. The only advantage for the German troops in more open country would be that their heavier armed tanks could outgun the American tanks over longer ranges. However, in a German attack they would be easier prey to the US fighter-bombers when manoeuvring and exposing themselves in the open.

### 8.3 Direction

Lee's report on the intelligence branch in 12<sup>th</sup> Army Group says little on how the intelligence process was directed other than through how the branch was organized. However this draws a picture of a functionally organized branch between Tactical and Main HQ Echelons. The report does not contain any analysis of how direction was handled, nor if or how it could be improved.

The aim for direction of intelligence work is to gather those pieces of information which may narrow down enemy capabilities so that the commander can make decisions on the utilization of his forces accordingly (War\_Department, 1940, p. 7). The fewer contingencies he has to plan for, the more optimal that utilization will probably be. Therefore, the intelligence branch needs to analyze which pieces of information will exclude possible enemy capabilities, or reveal what the enemy actually plans to do or has decided on. To support the direction of the intelligence branch and the collection resources, this analysis should result in a list of *Essential Elements of Information* (EEIs) on the enemy situation, terrain, and environmental conditions. These EEIs are needed to make conclusions on how these factors influence enemy capabilities, and then how the array of possible enemy capabilities can be narrowed down. Unfortunately, I have not been able to find any archived planning guidance for the overall staff or EEIs for the intelligence branch, nor the Standard Operating Procedures of the staff, only the products from the staff such as Letters of Instruction and intelligence reports<sup>51</sup>. Therefore I have to make the analysis regarding this point based on secondary sources as well as indirectly through the available primary sources.

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<sup>50</sup> Fire direction is difficult with short fields of observation because indirect fire has to be bracketed, i.e. "walked" back and forth to establish range and guide the impact to target. If you call the first shot at close range, the first round can fall upon yourself or outside your field of vision, thereby making it very difficult to assess the coordinates safely for the next round. The safety risk would be even greater when employing close air support (CAS) in close terrain.

<sup>51</sup> I was unable to find these or any other planning directives internal to 12<sup>th</sup> Army Group staff, in the 12<sup>th</sup> Army Group and SHAEF files at The National Archives/College Park. Any future analysis of the 12<sup>th</sup> Army Group Staff should try to locate such directives to further disclose the planning processes in the staff.

When it comes to planning of collection or analysis work, there are some indications that this was not abreast with the developing situation. Kirkpatrick<sup>52</sup> says (1993):

*The use of agents was unquestionably the intelligence collection technique least well understood by the military personnel. There was also inadequate forward planning for placing agents in key spots. These two elements undoubtedly reduced the value of espionage in the battle for western Europe below what it could have been.*

This indicates that forward planning and direction in the use of agents could have been better. However, it was primarily the responsibility of the Supreme Commander at the operational level to plan deployment and utilization of agents as OSS was under his command. 12<sup>th</sup> Army Group could use its OSS liaison teams to focus the efforts of the OSS field teams in the path of 12<sup>th</sup> Army Group's advance. Agents were also just one of several sources of information and the direction of collection from the others was better.

There is an indication by Pogue that cooperation between the G-2s at Army Group and Army level was generally poor (Pogue, 1980, p. 3), which is also supported by Koch concerning analysis. Although it does not automatically mean that direction within 12<sup>th</sup> Army Group G-2 section was poor, it has some bearing on the functioning of intelligence processes within a system of systems. Intelligence assessments made by the G-2s at Army level, who were closer to the situation and therefore should have a somewhat better picture locally, were not always listened to. Sometimes with dire results, such as in the Ardennes, see (Pogue, 1980).

#### **8.4 Analysis and Collation**

It was standard routine to exchange intelligence summaries and reports between 21<sup>st</sup> Army Group HQ (UK) and 12<sup>th</sup> Army Group HQ (US, under Gen Bradley). I was not able to find the intelligence reports from any sources in 12<sup>th</sup> Army Group HQ's decimal files in the National Archives that were the basis for its own intelligence analysis. However, I assume that the summaries would be sent during the night and be available for inclusion in the morning briefing in Bradley's HQ; as was the case with reports from HQs within 12<sup>th</sup> Army Group.

First and Third US Armies made their own assessments and reports based on available intelligence and combat information. The *G-2 Estimate of the Situation* presented the enemy

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<sup>52</sup> Kirkpatrick was in the team which made the report on 12th Army Group G-2 operations immediately after combat operations ended in 1945. Kirkpatrick's assessment is only 5 downloadable "pages".

capabilities and the “favoured” capability was the one which was considered most probable. (Koch & Hays, 1999, p. 141).

*That “favoured capability stood as the official one of the headquarters of issue. Each headquarters thus reached its own decision, even though intelligence information on which the decision was based might be the same as that considered by others (Koch & Hays, 1999, p. 142).*

Therefore, assessments on enemy courses of action and capabilities could have been different in Army Group and Armies. However, the essence of intelligence on enemy strength should be rather similar, i.e. their available forces. Information was amalgamated up through the levels of command, information from First and Third US Armies was amalgamated and presented differently with less detail at Army Group. For example how enemy strength is presented is relevant to avoid giving false impressions as discussed in section 6.3.4. Therefore the art is to be able to amalgamate and simplify, while at the same time clearly convey the important points relevant to command decisions.

It is especially demanding to keep intelligence assessments abreast with the situation during fluid operations with rapid advances such as during the Falaise Pocket battles. In a situation with attack and possible counterattack with armored forces, it would be beneficial for an intelligence section to have officers with previous experience from armored operations to assess enemy capabilities and terrain, and environmental effects for enemy armored forces (Koch & Hays, 1999, p. 124). I have not focused on the backgrounds of individual officers in 12<sup>th</sup> Army Group Intelligence Branch to try to analyse whether this might have had an influence on performance. With the armoured corps in the US Army relatively new, and the general neglect of professional intelligence training in the interwar period, it is not probable that trained and experienced intelligence specialists with such background would be available in abundance. However, given that the relative effect of intelligence is possible to assess, it would be interesting for future studies to look into how experience and training, alone and in combination, affects output from intelligence staffs.

Although Pogue’s report (1980) analyses intelligence in The Ardennes Campaign, it has some very revealing passages about 12<sup>th</sup> Army Group’s G-2, Brigadier General Edwin L. Sibert, and his G-2 colleagues at SHAEF, 21<sup>st</sup> Army Group and 1<sup>st</sup> US Army. That this also applies to Third US Army is indicated by Koch through his discussion on intelligence preceding the Ardennes Campaign (Koch & Hays, 1999, pp. 104-113). The report indicates an atmosphere of bickering and rivalry among Heads of G-2 sections, to an extent that it is likely to assume

that cooperation was poor and constructive discussion about possible different assessments of analysis non-existent. The following passages say a lot about the atmosphere:

*There was another problem in the case of the First Army and Bradley's 12th Army Group. Bradley's chief of intelligence in North Africa, and in the early days in Normandy, was Colonel Dickson. He had hoped to go to the 12th Army Group when Bradley assumed that command, but Bradley left him instead with a new commander of First Army and picked a general, Brigadier General Edwin L. Sibert, as his G-2 in 12<sup>th</sup> Army Group. The two intelligence officers became, not mortal enemies, but competitive - each one insisting that his information was better than that of the other. As a matter of fact, in the course of a number of months in 1946 through 1948, interviewing Eisenhower's G-2 (the British general, Major General Kenneth Strong), General Sibert, Colonel Dickson, and a number of others, I concluded that these chiefs of intelligence at various levels cooperated very little. When I tell you that Montgomery's G-2 intended to describe Eisenhower's chief of intelligence as the "Chinless Horror" and felt that he was the least informed of any intelligence chief, you get some notion of the disarray at that level at that time (Pogue, 1980, p. 3).*

Brigadier Sibert's complaint that *nobody was reading his G-2 reports* (see section 8.1 above) is another indication that intelligence integrity was lacking and that it was not sufficiently trusted by the other staff sections. Although this complaint might initially have been to cover up his failed assessment, it strengthens the indication of poor intelligence analysis. Although the intelligence branch consisted of several officers doing the analysis, it was Sibert who signed the reports and summaries and thus is the exponent of these products.

In WWII it was established US procedure for the intelligence staff to assess what the enemy was able to do and present enemy capabilities, but *to reserve consideration of enemy intentions for the commander . . . and . . . let the commander gamble on the alternatives the enemy would choose* (Koch & Hays, 1999, p. 112)<sup>53</sup>. Obviously, if the commander was presented results of poor analysis, it would be very difficult for him to rectify this by choosing between "wrong" alternatives. However, he should have a clear interest in getting the best team available for his intelligence branch. The higher up in the organization the wrong decision is made, the more dire the results.

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<sup>53</sup> Interestingly, although there was close US-British cooperation on many aspects of intelligence, the British procedure was for the intelligence staff to assess intentions also.

## 8.5 Signal Intelligence (SIGINT)

Sir Michael Howard has said the following about the importance of SIGINT in the world wars: *The most successful generals tended to be those whose radio-interception services were able to bring them the promptest and most accurate information about the intentions of their opponents* (quoted in (Herman, 1996, p. 23)). This gives us an indication of the importance of SIGINT and also why there was such emphasis on this source in WWII.

### 8.5.1 ULTRA

Ultra had a significant influence on operations. It was SIGINT collected from wireless intercepts of the highest grade cypher of the German Enigma machines. MI6 had obtained an Enigma machine and developed methods to decipher intercepts, eventually being able to deliver intelligence reports within three hours of intercept<sup>54</sup>. Ultra was available from the British via special liaison units (SLUs)<sup>55</sup> at Army Group and Army HQs.

*Perhaps Ultra's major contribution to the success of the Normandy landings was the monitoring of German acceptance of the Allied deception plan, Fortitude . . .* (Clayton, 1993, p. 143).

However, Ultra provided much vital information during the Normandy Campaign, from confirmation of the success of the FORTITUDE deception plan to targeting information on field HQs<sup>56</sup>, as well as status of German units, supplies and movement of reserves to the battle area. Status of units, supplies and reserves would be very important information to decision makers and planners, especially so for this study.

Due to security precautions, Ultra was handled by only a few vetted officers in 12<sup>th</sup> Army Group and its subordinate First and Third Armies. In 12<sup>th</sup> Army Group an *Estimates and Appreciation Group* (EAG) was established and it was considered

*. . . a highly effective method of providing General Bradley and his staff with the maximum amount of intelligence which the source offered . . . The function of this group was to collate ultra intelligence with the intelligence of all other sources and to*

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<sup>54</sup> For a comprehensive story see Hinsley et al or Bennett. The SIGINT center/HQ was located at Bletchley Park and was the forerunner of today's General Communications HQ (GCHQ). The staff at Bletchley Park also developed a "computer" to speed up deciphering of intercepts.

<sup>55</sup> The SLU had personnel for reception, deciphering and transmission of Ultra. As with the *Estimates and Appreciation Group* (EAG), for security reasons, they operated in separate rooms in the staff area.

<sup>56</sup> Panzer Group West HQ was bombed and more or less wiped out 11 June on the basis of Ultra, removing a capability for a German coordinated effort by the available three panzer divisions against the beach head (xx).



*formulate, under the direction of the . . . G-2, estimates of the enemy situation and capabilities. The specific duties of the attached officers were to receive and register all ultra messages from the SLU, post a current situation map, conduct two daily briefings for the Commanding General and other staff members<sup>57</sup>, dispatch signals to subordinate armies, record all order of battle information, . . .* (Murnane & Orr, 1945, p. 1).

The Estimates and Appreciation Group had intelligence folders for *Order of Battle, Supply, Operations and Intentions, Air, Enemy estimates of Allied Intentions, etc.* (Murnane & Orr, 1945, p. 2) Of special interest here, is that this group then tracked specifically all the categories of information which would be vital for the decision to halt Third Army or not. There was an Ultra OOB officer updating a special Ultra situations map. However, this study has to rely on Hinsley et al's work for information on Ultra intelligence because the operating procedure was to destroy all Ultra reports within 48 hours to avoid anything from falling in the wrong hands, thus protecting the important sources of this intelligence.

In 12<sup>th</sup> Army Group it was only the Commanding General (CG) Bradley, Chief of Staff (COS), G-1, G-2, G-3, G-4, Chief of the Intelligence branch and the CG Vandenberg, Deputy CG for Operations, and Director of Intelligence from 9<sup>th</sup> Air Force, who participated in the 0945 briefings. In Third Army it was the CG, COS, DCOS, G-2, assistant G-2 and G-2 Executive Officer, G-3 and the Signals Security Officer; only 8 officers in addition to the Ultra specialist/liaison officer and the other SLU-personnel (Church, 1945, p. 1). The Ultra liaison officer in Third Army kept a separate situation map based on Ultra in addition to other sources, available to the key personnel mentioned above. Security with Ultra was very strict and no report was kept for more than a few hours by anyone other than the SLU-personnel who kept them in a separate safe<sup>58</sup>. A special Ultra briefing was held daily for this small group of officers and CG and COS of XIX Tactical Air Command (TAC)<sup>59</sup>. After Ultra was able to warn of the German counterattack at Mortain, it was held in high esteem in the vetted staff of Third Army (Church, 1945, p. 3).

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<sup>57</sup> One briefing was held for General officers at 0945 and the other at 1130 for the rest of the personnel trained in handling Ultra.

<sup>58</sup> Reports were only filed by the SLU and are therefore not available in the regular army and army group files. For future studies, one should localize them in the NSA archives or at Kew.

<sup>59</sup> XIX TAC was the supporting air command to Third US Army and also had its own SLU with liaison officer. IX TAC supported First US Army.

The Periodic Reports from the G-2 section did not contain Ultra intelligence, unless it could be disguised behind other available intelligence. However, just as important is that both Bradley and Patton were in the Ultra picture and should have had an even better awareness of the enemy situation than is apparent in their G-2's reports. I have to rely on pieces of select Ultra reports as presented in the official history of Hinsley et al, as well as from Bennett's history of Ultra in Normandy, and it will be incorporated in the narrative and analysis below.

## 8.6 Dissemination, Communications and Liaison

### 8.6.1 PHANTOM

Intelligence is of little use if it is not disseminated to those who need it to guide their decisions and actions. Of equal importance is information on the situation of one's own troops', as it is with these sets of information as tools a commander can influence the battle. When they entered the war US forces relied upon the traditional system of passing messages up and down the chain of command. This could result in updates of the situation at the frontline reaching the higher echelons after several hours, or even half a day (Parlour & Parlour, 2003, p. 149) after important events occurred. Decisions and actions initiated from higher HQs could thus be overtaken by events, being irrelevant or directly damaging to their own forces. Especially situations where timely information on FLOT were essential, such as to coordinate air support and link up between allied forces, this system needed to be augmented with liaison officers, but these also needed means to communicate with higher and lateral HQs, to relay information alongside and faster than the basic system could do.

The British had concluded that they needed a system where information on the situation was relayed fast from the frontline battalions where the fighting actually took place, back to General Headquarters (GHQ). Montgomery had identified this need during the 1940 Campaign in France and introduced a system known as the *J-service*, first fully deployed during the fighting in North Africa, where he sent officers with wireless communication up to the forward battalion headquarters to relay situation reports back (Parlour & Parlour, 2003, p. 24). In parallel in France 1940, a system developed out of the initial Military Observer/Liaison mission intended to provide RAF with the forward positions of allied ground forces, also adding a reconnaissance function. The liaison force was named the *General Headquarters Liaison Regiment* and was called *Phantom* (Parlour & Parlour, 2003, pp. 26, 321-322).

At the time of the Normandy Campaign the system was meant to provide a squadron for each army and this squadron detached a patrol for each corps and division within that army<sup>60</sup>. The patrols would stay at the division HQ or move forward to get information from that division back to its squadron HQ who would pass it on to Regimental HQ co-located with 21 Army Group HQ, and keep it updated on the frontline situation. Corps and neighbouring divisional patrols would monitor this traffic and keep “their” HQ informed on the situation, thus avoiding delays and duplication of radio traffic. At 21 Army Group, the Regiment’s own HQ operated as an information node and to some extent an information assessment centre, where they put together situational reports from all along the frontline three times a day. These reports were distributed to all Phantom patrols and HQs to keep all forces updated. All radio traffic within the regiment was in High Grade Cipher Code (Parlour & Parlour, 2003, pp. 139-142).

This British “Battlefield Management System” (BMS)<sup>61</sup> worked so well that it was also provided for parts of the US Forces, among these were the First and Third US Armies and its Army Corps, as well as 12<sup>th</sup> Army Group and SHAEF (Parlour & Parlour, 2003, pp. 139-150, 199, 285, 318-320). Phantom patrols for 12<sup>th</sup> Army Group was set up on 10 August and operational by at least 13 August (Allen, 1944m, p. 2).

Some of the HF radio and antenna equipment was specially developed by and for *Phantom*, it was reliable and due to very well trained operators, was able to reach across Europe (Parlour & Parlour, 2003, pp. 267-271). Due to this capability the *Phantom* officer at US Corps HQs were sometimes made responsible to relay the Corps’ own regular situation updates to other commands (Parlour & Parlour, 2003, p. 332). For this study it implies that the US Commanders at Corps and higher levels were reasonably equipped to stay updated on the situation. However, the way up from Company and Battalion, through Regiment/Combat Command and Division could be long and it could take time to get information through.

### 8.6.2 SIAM

The US commanders realised that they were in need of a similar system to Phantom and an equivalent US organization was introduced during the war, the *Signal Information and Monitoring* (SIAM) companies. Although a SIAM company was available to the Fifth Army

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<sup>60</sup> See Appendix C for an overview of the organization of the *General Headquarters Liaison Regiment*.

<sup>61</sup> This term was developed during the 1990s, long after WWII, and it is also often related to systems based on information technology. However, it is used today to describe systems with the same purpose and similar functions as the GHQ Liaison Regiment.

in Italy in 1943, and to Seventh Army invading Southern France 15 August 1944; 3323 SIAM Company joined First Army only in April 1945, too late to have any impact on operations (Hogan, 2006, pp. 262-263).

Third US Army, however, established their own temporary expedient system, *to make and report front line G-2/G-3 information direct to the Army Advance Command Post* (Stewart III, 1944, p. Annex 1), by using the main part of 6<sup>th</sup> Cavalry Group as an equivalent to a Phantom squadron<sup>62</sup>. 6<sup>th</sup> Cavalry Group was organized to provide platoons with radio-links and relays; as well as liaison officers to each division within Third Army, including those divisions transferred from First Army. This provided in several instances communications with Third Army's subordinate commands, where the normal communications otherwise was lost. 6<sup>th</sup> Cavalry Group went operational in this role on 1 August and throughout the month (Stewart III, 1944, pp. 1, Annex 9)<sup>63</sup>. First US Army did not establish any such information system as Third Army did.

### 8.6.3 The Situation Room at HQ Tactical Echelon

Reports were received all day, both from Phantom patrols<sup>64</sup> as well as other intelligence branches, and continuously amalgamated into 12<sup>th</sup> Army Group's map overlays in the Situation Room, assessments and reports. The Situation Room staff also called around by phone to subordinate commands to get updates during the day. This practice, however, had its limitations as there were restrictions on what issues could be discussed over the phone due to security (Lee, 1945, p. 9). Feedback from the Armies stressed the importance of dissemination of spot reports, which there was a tendency to skip because of the system of issuing summaries and collated reports (Lee, 1945, pp. 17-18). Slow dissemination sometimes had very unfortunate results. This issue had a bearing on the effectiveness of dissemination both laterally and vertically, meaning that the Army Group could improve it as well. That G-2 officers were only on call between 0800-2400 shows that the battle rhythm slowed down

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<sup>62</sup> 6<sup>th</sup> Cavalry Group had two mechanized reconnaissance squadrons, one used for the "Army Information System" (AIS), and one for outpost and march security to the Army Forward Command Post. Detachments from the latter squadron were used to increase the capacity of the AIS when needed.

<sup>63</sup> When a SIAM Company became available to Third Army, or whether 6<sup>th</sup> Cavalry Group stayed in this role throughout the war until a dedicated Signal Staff Information and Monitoring unit could be attached to Third Army, is not clear from any of these sources (Stewart III, 1944) (Thompson & Harris, 1991) (Howe, 2010).

<sup>64</sup> See section 8.6 above.

during the night, when the daily intelligence reports from subordinate commands came in and had to be analysed and collated into the next morning's commanders' brief.

To summarize this means that the CG and his staff were updated with intelligence information which could be anywhere from 8-48 hours old. Of course, there would probably also be some fresher spot reports coming in just before the morning update, both intelligence and combat information. The basic understanding of the situation could be rather different between General Bradley and his HQ and the commanders and HQs in the subordinate armies, as well as among the Armies. This was due to both the time-lag of dissemination of information, and because of different analyses of available information. Differing analyses could be due to different basis of information, as well as different and often competing personalities, both commanders and intelligence officers, doing the analyses.

### **8.7 Action on**

The G-2 and G-3 had a shared situation map so that the graphically displayed intelligence on enemy units was available for control and planning of operations as soon as this intelligence was updated. However, elements in this update could be lagging hours and even days, so planning and control had to take this into consideration and calculate with longer time periods for manoeuvre. Terrain studies were also displayed and available to planners as soon as the studies had been presented and briefed to the CG and his staff, thus giving a good situational awareness regarding how terrain could influence operations.

The situation map displayed the enemy units by division symbols while many of them had shrunk to battalion combat teams by August. Although the divisions were labelled "elements" if considerably reduced, this system introduced the risk that the enemy could be considered stronger than he actually was. It is not mentioned in any of the sources I have studied whether more detailed intelligence on enemy strength was made available by graphical display as a quick reference in the 12<sup>th</sup> Army Group HQ, such as in Third Army. , thus running the risk  
However,

- Personal relationships (Bradley – Montgomery – Patton) (Bradley, 1980) (D'Este, 1994), and the lack of regular command meetings between army group and army commanders (Boog et al., 2001, p. 561) (Bradley, 1980) (D'Este, 1994).

## **9 Operations and US Intelligence Assessments in Normandy 1–13 August 1944**

In this chapter I will outline the operations from the 12<sup>th</sup> Army Group became operational until Bradley decided to halt Third US Army at Argentan 13 August. The allies eventually

closed the pocket on 19 August, but the German counterattack by II SS Panzer Corps reopened a small corridor on 20 August which let further German forces escape until the pocket finally closed on 21 August.

### 9.1 Setting

General Patton's Third US Army became operational 1 August and the same day General Bradley relinquished command of First US Army to General Hodges and took command of 12<sup>th</sup> US Army Group<sup>65</sup>. General Montgomery functioned both as commander 21 Army Group<sup>66</sup> (UK), as well as commander allied land forces until the Supreme Commander, General Eisenhower, took personal direction of the ground campaign 1 September (Blumenson, 1987, p. 401). When Bradley switched commands, he only took with him the G-1<sup>67</sup> of First US Army to the staff of 12<sup>th</sup> Army Group. It was normal for commanders to take with them several of their best staff officers when they changed command, in order to have a functioning staff team as soon as possible in the new command<sup>68</sup>.

FUSAG, the predecessor of 12<sup>th</sup> Army Group, had been activated 19 October 1943 and the staff as such had some experience (Howe, 2010, p. 120). General Bradley was nominal commander to FUSAG as well as Commander First US Army. Understandingly, he had to spend the most time with the command actually doing the fighting. Therefore he was less familiarized with 12<sup>th</sup> Army Group staff when he took "full" command 1 August 1944, and quite importantly, he had not had the time to develop a close relationship with his G-2 or G-3<sup>69</sup>. FUSAG had until 1 August had only one army to control, and it was not until 25 July operations had increased in tempo. When Bradley took command he had a staff which, so far in the campaign, was not familiar with a high operational tempo, nor did it have the same operational experience as its subordinate command's staffs.

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<sup>65</sup> First US Army Group (FUSAG) was renamed to 12<sup>th</sup> US Army Group 1 August 1944.

<sup>66</sup> 1<sup>st</sup> Canadian Army HQ under General Crerar had only gone operational on 23 July (Pogue, 1954, pp. 200-201).

<sup>67</sup> G-1: Personnel officer.

<sup>68</sup> Bradley had brought with him several key officers from his corps command in Sicily to establish the staff of First US Army, and General Patton did the same when he switched command from Seventh Army to Third Army.

<sup>69</sup> G-2: Intelligence Officer and Assistant Chief of Staff, Brigadier General Sibert. G-3: Operations Officer and Assistant Chief of Staff, Brigadier General Kibler.

The German higher formations had been through several changes during June and July. By 1 August Generalfeldmarschal Guenther von Kluge was Commander in Chief West<sup>70</sup> (OB WEST<sup>71</sup>), replacing Generalfeldmarschall Gerd von Rundstedt after he had argued with Hitler over the strategy in France. Because Field Marshal Rommel had been severely wounded in July due to an allied air attack, Kluge also had the responsibility as Commander Army Group B from mid-July, controlling Fifth Panzer Army and Seventh Army (Pogue, 1954, p. 194). At Fifth Panzer Army General der Panzertruppen Heinrich Eberbach had replaced Geyr von Schweppenburg because he had sided with Rundstedt in the dispute over strategy. Seventh Army was commanded by General Hausser (Blumenson, 1961, p. 239).

Of even larger significance, there was a large discrepancy between Allied and German actual strength. In the period 6 June – 23 July Allied and German forces suffered approximately the same number of casualties<sup>72</sup>.

*German sources estimated casualties for that period at 116 883. While the Allies had replaced nearly all their losses by the end of July, enemy [German] reinforcements numbered only some 10 000. The effect appeared in the number of understrength divisions which the enemy had for use against the Allies. On the 25<sup>th</sup> [July], the Seventh Army had at most thirteen weak divisions . . . (Pogue, 1954, pp. 194-195).*

By 25 July the situation in Fifth Panzer Army was similar with a nominal strength of fifteen divisions<sup>73</sup>, but these were depleted. The strength of 12<sup>th</sup> Army Group was the equivalent seventeen divisions and 21<sup>st</sup> Army Group had the equivalent of sixteen British and Canadian divisions (Pogue, 1954, p. 192). The Allied divisions were brought up close to full strength. To strengthen German Army Group B, *it was assumed that an additional thirteen or fourteen divisions could be brought into the battle area* (Pogue, 1954, p. 195). On the allied side, three to five US divisions would be brought to the continent per month. To impede German reinforcements in reaching the frontline, especially the Allied air interdiction operations along the Seine and the Loire Rivers, but also the special forces' and the Resistance's operations against rail lines were important.

Two other factors were also critical for the outcome of the campaign in Normandy. The Allied air supremacy was almost total, which had a great impact on German mobility,

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<sup>70</sup> In command of all German forces in France and the Low Countries.

<sup>71</sup> Oberbefehlshaber WEST (OB WEST).

<sup>72</sup> British and Canadian casualties 49 000 and US 73 000 troops (Pogue, 1954, p. 192).

<sup>73</sup> Of which six were panzer divisions.

supplies and reinforcements as well as direct casualties to air attack. Also, the Allies had a far better logistical situation than the German forces. Even though they only had Cherbourg<sup>74</sup> and supply over beaches, they were able to sustain their armies far better than Army Group B, who had mounting supply difficulties almost by the day. In the course of the Falaise Pocket battles the German supply situation would turn critical.

*Allied air superiority made movements of German reinforcements and supplies almost impossible while permitting the Allied forces to land their materiel and move it forward with impunity* (Pogue, 1954, p. 193).

However, this study has not revealed any assessment in 12<sup>th</sup> Army Group's G-2 reports or briefings to General Bradley, of how Allied air interdiction operations could influence operations. Neither has it revealed any assessment of other air operations' consequences for the land operations, other than it provided support which could reinforce and free up ground units. Although it might have been taken for granted that Bradley knew this, it might be an indication that the understanding of the role and effect of air power had shortfalls at this time of the campaign. If so, this points both to 12<sup>th</sup> Army Group Staff as well as to Bradley himself, because it would have been visible in the staff's products if he had required such assessments.

The US COBRA offensive initiated on 25 July west of St. Lo, had by 29 July pushed the German front back 15 km. The following two days saw the German frontline torn open and First Army advanced south a further 20 km and seized Avranches (Blumenson, 1961, pp. 239-322, Maps VII & VIII). US troops allocated to Armies are given in Table 3<sup>75</sup>. Divisions marked with an asterisk were intended for Army Group Reserve when possible to extricate them

Intelligence of 29 July said that the Germans had probably revealed by now that the Normandy landings were the main effort in the West, and consequently he would free up forces from Northern France and the Low Countries to reinforce the combat area in addition to reinforcements from Southern France (Allen, 1944n, pp. 1, 3, Annex 2). The assessed enemy strategic course of action in the West was to:

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<sup>74</sup> The first supplies were brought in through Cherbourg on 19 July (Pogue, 1954, p. 193) and the port's capacity would in short time be multiplied compared to the pre-war capacity.

<sup>75</sup> 80th Infantry Division became available 2 August, 2nd French Armored Division 4 August, and 7<sup>th</sup> Armored Division 10 August (Cummings, 1945, p. 12).



*... gradually shorten the [front] lines, economizing forces as far as consistent with inflicting the maximum cost to the Allies ... to hold on until the force of the Allied offensives have been spent or weakened ... (Allen, 1944n, p. 1 Annex 2).*

The “favoured” enemy capability was that he would regroup and defend behind the strong terrain along the Sienne and Selune Rivers (i.e. from Avranches to the east and the north-east). It was estimated that the divisions of German Seventh Army as a mean had only 50% strength left. Immediate reinforcements to Seventh Army opposing the First and Third US Armies, were estimated to be 4-6 divisions from Fifteenth Army (north) and 1 Panzer division from Nineteenth Army (south)<sup>76</sup>(Allen, 1944n, p. 4 Annex 2). However, due to the effective Allied cutting of rail lines, German troop movements over the last stretch into the combat area had to be conducted by road which meant that there could be no rapid build-up and no surprises from operational or strategic reserves. Road movement was primarily conducted by night, and therefore slow, as all day movement was subjected to air attacks.

The intelligence branch had given its CG an update on enemy strength, operational reinforcements, terrain, and course of action and capabilities before the tempo of the advance really picked up. I will assess the accuracy of the intelligence on enemy strength later.

## 9.2 Operations End of May – Tuesday 1 August

From 29 July<sup>77</sup> until the closing of the Falaise Pocket, 12<sup>th</sup> Army Group released 5 Letters of Instruction<sup>78</sup> (LOI) which were orders for First and Third US Armies and Ninth Air Force with IX and XIX Tactical Air Commands (TAC). These were based on the comprehensive

<sup>76</sup> The German First Army was holding the sector from the LOIRE RIVER to the Spanish border, and the Nineteenth Army was holding the sector along the Mediterranean.

<sup>77</sup> 12<sup>th</sup> Army Group, renamed from First US Army Group (FUSAG), went officially operational on 1 August 1944. FUSAG had operated since months before D-Day and prepared LOI Nr 1 with 12<sup>th</sup> Army Group heading.

<sup>78</sup> LOI Nr 1 on 29 July, LOI Nr 2 on 3 August, LOI Nr 3 on 6 August, LOI Nr 4 on 8 August and LOI Nr 5 on 17 August 1944. Major General Leven C. Allen was Bradley’s Chief of Staff, and Franklin A. Kibler was his G-3 Operations Officer.

Troops to First and Third US Army 1 August 1944

First US Army	Third US Army
V Corps	VIII Corps
VII Corps	XV Corps
XIX Corps	XX Corps
1st Infantry Division	XII Corps
4th Infantry Division	8th Infantry Division
5th Infantry Division*	79th Infantry Division
9th Infantry Division	80th Infantry Division
28th Infantry Division	83rd Infantry Division
29th Infantry Division*	90th Infantry Division
30th Infantry Division	4th Armored Division
35th Infantry Division*	5th Armored Division
2nd Armored Division	6th Armored Division
3rd Armored Division	2nd French Armd Division
7th Armored Division	

Table 2 - 12th Army Group Troops 1 August 1944. Source: (Allen, 1944n). Division

order for operation OVERLORD (Allen, 1944n, p. 1). According to today's NATO terminology, these were short Fragmentary Orders of 2-3 pages with usually only one annex with an operations map. LOI Nr 1 also had an intelligence estimate of the enemy situation. LOI Nr 1 of 29 July initiated Phase II of OVERLORD and the First Army was initially to seize the area Mortain – Vire, and Third Army to seize the area Rennes – Fougères before it was to secure vital ports in Brittany (Allen, 1944n). First Army was on 3 August ordered to secure the area Mayenne – Domfront and Third Army to secure crossings over the Mayenne River down to the Loire. Both Armies should be prepared to continue east (Allen, 1944o). Bradley's intention was to build a firm foothold with a line St.Malo – Rennes – Fougères and then back up towards First Army heading for Mortain before thrusting forward to the Loire (Hansen, 1944, p. 2 August).

1 August Third Army started to push through Avranches and into Brittany with VIII Corps<sup>79</sup> and with XV Corps<sup>80</sup> due south (Cummings, 1945, p. 16). At the 1430 briefing, G-2 told Bradley that the opposition in Brittany was scattered, but the forces opposing First Army generally put up stronger resistance. 116 Panzer Division was moved from north of the Seine and committed against 12<sup>th</sup> Army Group, First Army. 363 Infantry Division was moving from Belgium, and 9 and 11 Panzer Divisions were moving from southern France towards the Area of Operations (AOO)<sup>81</sup>. The enemy was believed to establish a defence line Domfront – Laval – Mayenne (Allen, 1944b, p. 1). Patton was eager to get going and strike fast and deep and he was concerned about Bradley's cautiousness and slow advance (Patton, 1945, p. 1 August p.2):

*General Bradley simply wants a bridgehead over the Selune River. What I want, and intend to get, is Brest and Angers.*

Differing views between the generals on concepts and tactics were emerging. However, Patton was wrong that Bradley did not look to Brest and Angers, he just wanted to proceed carefully. To Bradley, it did not matter if they reached Brest in a couple of days or in a couple of weeks, because they would get it as long as they cut off and isolated the Brittany peninsula (Hansen, 1944, p. 2 August). However, cautiousness can be a double-edged sword, it may let the adversary recuperate and regain his balance after blows. It may also let him slip away,

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<sup>79</sup> Initially with 4<sup>th</sup> and 6<sup>th</sup> Armored Divisions, and 8<sup>th</sup> and 79<sup>th</sup> Infantry Divisions.

<sup>80</sup> Initially with 5<sup>th</sup> Armored Division, and 83<sup>rd</sup> and 90<sup>th</sup> Infantry Divisions.

<sup>81</sup> 9<sup>th</sup> Panzer Division should not be confused with the 9<sup>th</sup> SS Panzer Division already in the AOO.

when he could have been encircled and destroyed. Although Bradley left his army command 31 July, First Army was considered poorly tactically led by General Elfeldt, commanding the German LXXXIV Corps from 28 July (Lidell Hart, 1948, p. 254):

*The American troops, of the 1<sup>st</sup> Army, on my front were not tactically at all clever. They failed to seize opportunities – in particular they missed several chances of cutting off the whole of my corps.*

This is only one German general talking, and it does not need to say that much about all of Bradley's qualities as a commander, but it does say something about how vigorously the First Army was pushing its advantage when its adversary was beginning to reel. Bradley had hand-picked the key personnel in First Army's staff so they should probably be relatively like-minded when it came to concepts and tactics, and therefore it can be an indication as to Bradley's way of thinking as well.

The 116 Panzer Division had been correctly reported as a full-strength new arrival to the AOO in the 31 July G-2 report (Sibert, 1944b)<sup>82</sup>, and the Intelligence Branch had also correctly assessed that a fresh Panther tank battalion belonged to the 24 Panzer Regiment, part of 116 Panzer Division (Sibert, 1944c). This is so spot-on, although contradictory with a PW interrogation report; that my assessment is that it was either very good analysis, or picked up in plain language or low grade cypher by SIGINT from maintenance radio-traffic. Both Panzer Grenadier Regiments of 116 Panzer Division were also reported identified at the front in the 31 July G-2 Report. The annotation that 116 Panzer Division was full-strength should have been made to the Cdr's briefing to make sure it was picked up by the CG and the staff since it was probably not mentioned in any previous briefings, and it would probably have a far better striking power than the other depleted Panzer Divisions already committed. Apart from that, the intelligence update focused at the main items of relevance to the commander, namely the movement of operational reserves which could influence on his scheme of manoeuvre and possibly threaten his approach and flank as he intended to advance to the Loire.

11 Panzer Division was reported moving up from Bordeaux 31 July in the area of Vibraye (east of Le Mans) (Sibert, 1944b, p. 1), approximately 170 km from Fougères. If the division

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<sup>82</sup> 116<sup>th</sup> Panzer Division was fresh and full-strength when committed against First Army 31 July 1944 (Lodieu, 2012, pp. 5-13).

was moving by night to avoid air strikes, it would probably move 50-60 km per night<sup>83</sup>, meaning it would be available for commitment around 3 August. If it was urgent enough and Field Marshal Kluge accepted losses in the approach march, it could move during day-time and reach the AOO by 1 August<sup>84</sup>. 9 Panzer Division was observed in the Rhone Valley on 28 July, conducting anti-guerilla operations south of Dijon (Sibert, 1944a), approximately 550 km from Fougères. It was *not* seen moving towards north. When it started to move, it could become available within 4-5 days at best, making a movement as fast as possible up to Le Mans and then a more cautious approach at and after the Sarthe River crossings<sup>85</sup>. This meant that it would be available by 2 August at the earliest. The Allied air interdiction plan to hamper German reinforcement of the Normandy combat zone had an inner and an outer air interdiction line; any unit coming up from southern France had to pass both. Train movement across the Loire and the Sarthe Rivers, and even through the Paris – Orleans gap would be extremely difficult (Messenger, 2004, p. 103) (Craven & Cate, 1951, pp. 209-221, 258-266). An interesting observation is that neither the G-2 Periodic Reports, nor the Commanders Briefings of late July or beginning of August contain any such assessments as I have presented here, they just state the observations of German units. A flaw with these intelligence products is therefore that they do not help the commander to analyze the information as they should. The briefings should explain the “so what” for the commander, in this case telling him if, and when, the enemy can have what force available for counter-attack where when he drives south and east. Although Bradley could draw such conclusions himself, intelligence should do it for him and especially say what it means for strengthening or

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<sup>83</sup> With “combat lights”, i.e. to illuminate the road 5 meters ahead of the vehicles, columns would typically move 10-15 km/hour. With the 5-6 hours of darkness in July/August, this would mean only 50-60 kilometers per night with short stops for rest and simple maintenance. I Bn/24 Panzer Regiment reported 50 km in one night of approach march 29/30 July (Lodieu, 2012, pp. 10-13).

<sup>84</sup> This must have been a false report, or maybe mistaking it for another unit. 11. Panzer Division started movement from Bordeaux to Carcassonne 15 July, the movement completed on 1 August (Nevenkin, 2008, pp. 296-297). Although the II Bn/15 Panzer Regiment was ordered to Normandy on 10 August, it never went further than Dreux, before it returned to 11. Panzer Division by 25 August. On 13 August the division was ordered to Avignon (northwest of Marseilles) and ordered against the Allied landings on the Riviera 15 August, going into action 22 August. Thus, no parts of 11. Panzer Division saw any action in Normandy, although one of its tank battalions could have posed a threat to the AOO probably between 12 – 23 August.

<sup>85</sup> 9. Panzer Division arrived piecemeal in the AOO from around 4 August (Zetterling, 2000, p. 400), the main body deployed between Domfront and Mayenne on 6 August to contain US XV Corps’ drive towards Le Mans (Nevenkin, 2008, p. 272).

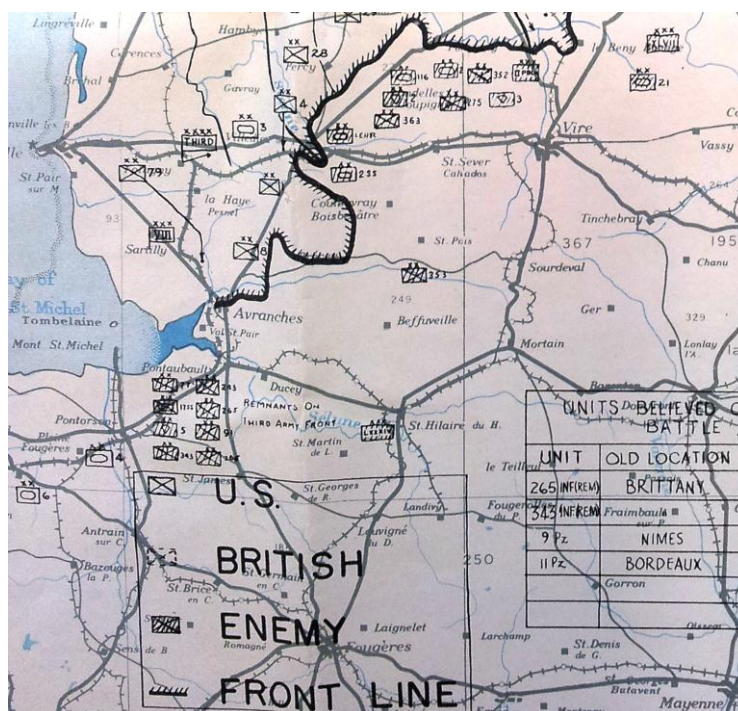
reducing the enemy capabilities presented so far. Third Army's G-2 Section, however, provided an analysis on the information on 11 Panzer Division. Based on a report stating that the division had crossed the Loire on 26 July, they estimated *commitment in battle area expected by 30 July* (Koch, 1944a). Although the report on 11 Panzer Division was false, and it never turned up in Normandy, this provided analysis and described consequences of the available information. To 12<sup>th</sup> Army Group's Intelligence Branch' defense I have to say that it was very difficult to predict how fast German reinforcements could arrive in the combat zone because of the effective Allied air interdiction operations. Units had to make long and time-consuming detours and were even sometimes caught between railway cuts when trying to reach the zone by train (Craven & Cate, 1951, pp. 219-225, 258) to avoid depleting the operational status from long road-marches, especially of armored fighting vehicles.

### 9.3 Operations Wednesday 2 and Thursday 3 August

The Intelligence Branch did furnish collated and analysed information regarding relative Allied and German strength. 2 August Bradley was briefed that there were 11 British and 12 US divisions at the frontline compared to 8 ½ and 8 German divisions facing them in their respective sectors (Allen, 1944c, p. 2). However, the G-2 situation map for the same day at 1200

(Intelligence\_branch\_12th\_Army\_Group, 1944a) shows 18 German divisions in 12<sup>th</sup> Army Groups sector, meaning that there must have been an analysis saying that the average

German division was at a relative strength of ca. 45%. Some divisions were only remnants and a few, such as the 116 Panzer Division, were quite fresh<sup>86</sup>. Although this was valuable information, it did not show the whole situation. The Allies also had some divisions out of the



Map 2 - Segment of G-2 Situation Map 2 August 1944, 1200 Hours. Source: (Intelligence\_branch\_12th\_Army\_Group, 1944a).

<sup>86</sup> For example LXXXIV Corps had 3 relatively fresh divisions, including 116 Panzer Division, whereas seven other divisions were so depleted that they were formed into a single division (Lidell Hart, 1948, p. 253).

line, either refitting or in reserve, and the US Armies had even new divisions coming into the AOO, a total of 4 US divisions were moving up to bring the comparative strength to 2:1 in favour of US forces. Keeping in mind the Allied air supremacy, this strength relationship was even more in favour of Allied forces. The German Armies tried to establish a reserve, but were unable to keep any armored divisions away from the front line for long due to the Allied pressure.

When Third Army pushed on into the Brittany peninsula with VIII Corps, units from XV Corps took some time to follow on and fan out to the south and east due to traffic congestion between Avranches and St.Hilaire (Patton, 1945, pp. 1 August 1st, 2 August 2nd). When General Bradley went forward on 2 August to contact General Patton, he did not find Patton at first. Bradley then went to the commander of VIII Corps, attacking into the Brittany Peninsula and found him worried about his open flank and back to the east and south-east. Bradley then intervened personally and bypassed Patton as Army Commander, and ordered 79<sup>th</sup> Infantry Division to secure FOUGERES and a line north-east towards Louvigne de Desert (Hansen, 1944, p. 2 August). Bradley, in disagreement with Patton's tactics, exclaimed (Hansen, 1944, p. 2 August):

*Some people are more concerned with the headlines and the news they'll make tha(t)[n] the soundness of their tactics. . . . Dammit I'm not interested in making news; I want to get on a solid front and then get going.*

Patton's diary on the other hand might indicate there were some old grievances between the two generals, maybe because of their totally different view of dash and offensive spirit in contrast to cautiousness. After Patton told Bradley that he would concur with his intervention, he wrote (1945, p. 2 August p.3):

*It is noteworthy that just about a year ago to the day I had to force him to conduct an attack in Sicily. I do not mean by this that he is avengeful, but he is naturally super-conservative.*

Patton referred to an incident when he was Army Commander in Seventh Army and Bradley was Corps commander. In Normandy the roles were reversed, although with an opposite situation, Patton wanted to push on and Bradley wanted a firm bridgehead before pressing the attack further.

Was Bradley over-cautious; was there a real threat of a concentrated counter-attack to an open flank? The general assessment was that there had to be available panzer divisions to create a spearhead in a counter-attack because they had the most striking power. Although Allied

infantry divisions often lead attacks in Normandy, German practice was to concentrate panzer divisions for major attacks/offensives. Infantry was used for local attacks and to protect flanks and hold gains after a breakthrough. What was available intelligence to Bradley on enemy OOB and units expected to be available as reserves and reinforcements? His Intelligence Branch had told that there were two panzer divisions approaching the AOO. Otherwise, there were no enemy divisions capable of offensive action in the AOO unaccounted for. He was not briefed on when the panzer divisions could be ready for commitment, but he could deduce that himself. Intelligence had located the 116 Panzer Division as in France, but had not given immediate warning prior to its commitment 31 July. Bradley could therefore not expect to have immediate warning of commitment of 9 and 11 Panzer Divisions, and he was rightly concerned about a counter-attack from Mortain (Patton, 1945, p. 1 August p.1) against Avranches to seal off Third Army's units which had broken through to the south. Because XV Corps had not gotten 5<sup>th</sup> Armored and 83<sup>rd</sup> Infantry Division past Avranches, a counter-attack by two panzer divisions could wreak some serious havoc against the bridgehead across the Selune River.

However, due to the Allied air supremacy, the German generals considered attacks only feasible in the early morning hours while there was light but with the morning mist still concealing their troops from Allied air forces. The thing was that the typical situation was that Allied Air had to wait some hours in the morning until the morning mist was dissolved before conducting operations. Maybe Bradley took this into consideration in his assessment<sup>87</sup> and was concerned about a counter-attack in the early morning next day. Due to good flying weather in the late morning, he should not have been concerned about this for 2 August. Although Ultra had revealed that the task of 116. Panzer Division was to counter-attack towards Avranches, it also disclosed that except for a few Flak elements used in the ground role, the left flank of 7. Army was open (Hinsley et al., 1988, p. 242). Due to the grave situation, German wireless traffic peaked in August, and Ultra provided a lot of intelligence on German OOB, unit boundaries, movements, and even German assessments of the situation and intentions (Hinsley et al., 1988, pp. 238-277).

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<sup>87</sup> There was dry flying weather 2 August, as Patton talks about terrible dust on the roads between the forward units and his HQ (1945, p. 2 August 2nd). One Group of XIX TAC was grounded due to weather, all the rest operating after 1000 hours providing cover and close air support to Third Army, as well as reconnaissance down to the Loire (Weyland, 1944, pp. 3-4, Part I).

On 2 August IX TAC was supporting 3<sup>rd</sup> Armored Division's attack towards Mortain with success, blasting defensive positions in front of the advance, and providing air patrols 30 km's ahead of the armored columns (George, 1945, pp. 165-166), as well as armed reconnaissance towards the Seine. However, Bradley only received specific briefing on the support to Third Army's 4<sup>th</sup> and 6<sup>th</sup> Armored Divisions (Allen, 1944c, p. 2), not on the planned air operations in the Mortain area, neglecting the overall air-operations picture in support of 12<sup>th</sup> Army Group. There was neither any weather report in the morning brief of 2 August.

Unlike 12<sup>th</sup> Army group who received their Phantom detachment 10 August, Third Army had their own army information system (AIS) operational by 1 August, ref. section 8.6.2 above. Patton and his Forward Command Post could thus have reasonably updated information of the development at the frontline, whereas 12<sup>th</sup> Army Group HQ Forward Echelon and Bradley received information at a slower pace during the first critical days of August. Less updated intelligence and combat information requires larger safety margins, which might have had an influence as well on the different attitudes of Bradley and Patton. Although Bradley had great interest in the British Phantom system, he did not establish an expedient for the SIAM companies while in First Army reaching down below arm corps level, like Patton did in Third Army.

In summary I would say that based on his available information revealed in written sources, Bradley was cautious, but not over-cautious. However, he should have required better information on the air operations which were so vital for the success of the advance as well as for providing combat information to the US armies and their spearheads. He should also have improvised an expedient to provide combat information and intelligence faster before 12<sup>th</sup> Army group went operational.

3 August Bradley was briefed that there was little organized resistance in front of Third Army, but stronger resistance on the First Army front. Little intelligence had been received from the British sector. Intelligence revealed that the German replacement personnel received were often unfit for combat (Allen, 1944d). The brief, however, did not draw the conclusion that this meant that divisions' effectiveness probably dwindled more than their actual personnel strength should indicate.

Bradley ordered First Army on 3 August to advance east between Vire and Mortain to secure the area Mayenne – Domfront (Allen, 1944o). Third Army was to clear the Brittany peninsula and secure its ports with minimum forces, while securing crossings of the Mayenne River and



clearing the area down to the Loire. The flank at the Loire was to be held by minimum forces to preserve forces for the main advance to the east, see **Feil! Fant ikke referansebildene..**

Rennes was attacked and isolated by VIII Corps 3 August (Director\_Historical\_Division, 1946, p. 8) and the US operations were supported by several thousand members of the Forces Francaises de l'Interieur (Resistance) who took control of some key areas in Brittany. XV Corps established a coherent front from Fougères to the area of south of Mortain (Director\_Historical\_Division, 1946, p. 9). The enemy was not able to establish a cohesive frontline, but conducted delaying actions and harassed movement of Third Army supplies with sniper fire (Cummings, 1945, p. 19). First Army occupied Mortain itself and the surrounding area. Further north, First Army elements pushed east – southeast and seized high ground south of Vire.

G-2 reported in the evening that there were no changes to enemy units in contact with US forces, but 9 SS Panzer Division had withdrawn from the Caen area in the British sector (Sibert, 1944d). It is odd that only 9 SS Panzer Division is mentioned as both 9 SS and 10SS Panzer Divisions were shown on the 1200 Hours situation map the same day, opposing the British salients into the German line north of Vire. A report from XIX Corps saying 11 Panzer Division had been identified was assessed as confused with 116 Panzer Division. Again, Bradley's staff presented collated information

without the next step of analysis, although there was a correct analysis with regard to the confusion of 11 with 116 Panzer Division. This was probably corrected with the aid of SIGINT, analysing radio traffic. G-2 reported also the cumulative number of prisoners taken



Map 3 - Segment of G-2 Situation Map 3 August 1944. Source: (Intelligence\_branch\_12th\_Army\_Group, 1944b)

by First Army. The OOB annex to the report was not in the archives, so it is not possible to assess whether there was an analysis on the effect of this number of prisoners.

A combat group consisting of members from 2 Panzer, 2 SS Panzer and 17 SS Panzer Grenadier Divisions was reported defending strongly First Army's advance (Sibert, 1944d). This indicated at least two things; one was that these divisions were substantially reduced in combat strength, another that, although the German forces were reputed of being quite good at amalgamating remnants of different units into combat groups, the command and control of German units was probably reduced in effectiveness due to heavy losses. Neither of these indications were mentioned in the G-2 report.

#### 9.4 Operations Friday 4 and Saturday 5 August

4 August Bradley was briefed that 9. SS and 10. SS Panzer Divisions<sup>88</sup> had deployed towards the British right flank (i.e. towards the US left flank) (Allen, 1944e). The British had made substantial gains towards the south in the area north-east of Vire, and the deployment of the SS panzer divisions should have been assessed as a probable response to this. Maybe this was too obvious due to the British advance. It should have been mentioned that both SS divisions were engaged in heavy counter-attacks and defensive action to restore the frontline and contain the British, to underline that the II SS Panzer Corps was tied down and not posed an immediate threat to the US forces as long as the British maintained their pressure. II. SS Panzer Corps was moved from Caen to counter-attack and re-establish the frontline north of Vire during the nights 1-2 August and 2-3 August (Tieke, 1999, pp. 149-155), the counter-attack starting as soon as the first units arrived there. The British salient towards Le Beny-Bocage was threatening to split the German 7. Army and 5. Panzer Army.

9. SS Panzer Division was attacked during their movement by the RAF and sustained considerable damage (Allen, 1944e). This movement during daylight was only conducted as a last resort by the Germans due to the overwhelming Allied air forces, and thus indicated that the section of frontline bolstered by the II. SS Panzer Corps had been crumbling in front of the British BLUECOAT offensive launched 30 July (Blumenson, 1961, pp. 289-290). The signs were adding up that the situation was growing more and more serious for the German defenders in Normandy, and the comparable strengths was reported as 12 US divisions on the frontline versus 6 ½ German. Again the 5 uncommitted US divisions, which would almost tip the strength ratio to 3:1 in US favour, was not mentioned.

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<sup>88</sup> These divisions made up the II SS Panzer Corps, which was strengthened by 21 Panzer Division before 6 August.

There were also other factors which should have been included in an analysis of comparative strengths. First, German divisions were usually strengthened with one combat battalion from Army, whereas some US divisions were supported by a number of units almost doubling their combat power (Zetterling, 2000, p. 410). Around 13 August VII Corps had an average of 6 extra battalions per division, of which 3 battalions were artillery (Office\_of\_the\_Theater\_Historian, 1945)<sup>89</sup>. This brought the average combat battalion strength of each division to 13, plus 7 artillery battalions! Although VII Corps had been fighting hard since 25 July, it received replacement personnel and material which the German divisions hardly did. The divisions in XV Corps had only on average two extra battalions around 13 August, so the staff had to keep the exact OOB in mind when preparing strength analyses for the CG.

Second, not only had the US forces more than the double number of artillery pieces than the Germans in their sector, they were also better supplied and expended 4 times more ammunition (Zetterling, 2000, p. 408). Third Army's troop list (Cummings, 1945, pp. 11, Annex A) returns a strength of 66 General HQ (GHQ) combat battalions<sup>90</sup> and 76 artillery battalions which come in addition to the divisional battalions (120 combat, and 41 artillery). Although some German reinforcements reached the AOO, the US forces had a clear numerical superiority during August. They had an overwhelming superiority in firepower also due to the Allied air forces, somewhat reduced during periods of bad flying weather. Thus, it would give a quite wrong impression of relative strength to compare division to division. Although Bradley could do some of the math himself, he had to utilize his staff to conduct these kinds of analyses where they depended upon so much detail.

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<sup>89</sup> This is collated by looking up all attachments of non-divisional troops for each division in VII Corps for the relevant time period.

<sup>90</sup> A GHQ unit was a unit organic to the Army, controlled by its HQ until attached to one of the corps or divisions. Third Army had 16 tank; 13 self-propelled and 11 towed tank destroyer; and 16 combat engineer battalions (see Engineer Annex nr 5); and 10 cavalry squadrons equivalent in organization to a battalion.

On 4 August VIII Corps occupied Rennes and continued to advance towards Brest. XV Corps was ordered to seize and hold a bridgehead east of Mayenne until relieved by the First Army (Cummings, 1945, p. 19). XV Corps was further ordered to seize a bridgehead at Laval and secure the Mayenne River as far south as Chateau Gontier, as well as seize Le Mans and be prepared to attack north and east. First Army fought hard around Mortain on its right, and approached Vire on its left.

G-2 reported that the Reconnaissance Battalion of 84. Infantry Division had arrived between Mortain and Domfront (Sibert, 1944e). However, there was only scattered resistance and no organized defense line opposing XV Corps, while VIII Corps met stiff resistance in Brittany. Finally, the 11. Panzer Division was located east of Toulouse, thereby not moving towards the AOO. G-2 further reported five possible divisions moving towards the AOO, three from northeast France/Belgium and two from southern France. Cumulative numbers of enemy prisoners and dead are now presented for the first time by 12<sup>th</sup> Army Group G-2. However, no deductions are drawn and no estimate of enemy wounded was made, which should roughly have been dead multiplied with 4. Wounded prisoners should then be deducted from this number to establish a total of enemy casualties (dead, wounded and prisoners). Again, collated information was presented without further analysis and conclusions.

On 1 June Ninth Air Force consisted of IX and XIX Tactical Air Commands (fighters/fighter-bombers), IX Bomber Command and IX Troop Carrier Command. Between them they had 18 fighter/fighter-bomber groups with 36-48 aircraft each, 2 tactical-/photo reconnaissance groups and 11 bomber groups as well as substantive air transport (George, 1945, pp. 337-341). The daily average of sorties in August for XIX TAC alone was 390, although fluctuating considerably due to weather conditions. Air support parties for all of Third Army's armored combat commands (CC) were made available to coordinate air cover and CAS; air support parties for infantry regimental combat teams are not specifically mentioned in XIX TACs AAR. There were three combat commands (CCA, CCB and CCR<sup>91</sup>) in each armored division, usually consisting of one tank and one mechanized infantry battalion with one or two artillery battalions and other units in support. The CCs made up the armored columns of the

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<sup>91</sup> Combat Command Reserve (CCR).

divisions, and each column had one fighter-bomber group providing continuous cover with 8-12 aircraft during daylight hours (Weyland, 1944, pp. 2-3, Part I)<sup>92</sup>.

On 5 August, a day with moderate flying weather, five Groups of XIX TAC were operating and . . . *the air plan provided cover for armored and infantry columns, and armed recces* (Weyland, 1944, pp. 6, Part II). On 5 August Bradley received this briefing on air operations (Allen, 1944f):

*The air plan for today for the First Army: 1 Group on general assault area cover. For Third Army: 1 group for general support area cover, 4 planes on air alert for the 83<sup>rd</sup> Division and four planes on alert for the 4<sup>th</sup> Armored Division. Heavy Bombers of the RAF last night planned to attack the town of BREST.*

IX TAC supporting First Army had 11 fighter groups. Not all of them were flying cover for IX Bomber Command so why were the other 10 not mentioned? Barely two groups of XIX TAC are mentioned, so what about the other 3? Third Army was attacking Brest, so some information concerning coordination of a heavy air attack on the town should have been provided. The brief gives a listing of the previous day's claim for destroyed material by Ninth Air Force, but an assessment of what the cumulative effect was regarding German combat power and their ability to sustain operations was absent. Considering that Ninth Air Force was in direct support to 12<sup>th</sup> Army Group throughout the war, and that their efforts were crucial for the ground operations, this looks at best as a slim brief on conducted and planned operations as well as effects. Actually, no battle damage (BDA) assessment on air operations was given, neither in the morning briefings, nor in the G-2 Periodic Reports of July or August. It was Ninth Air Force' responsibility to conduct (BDA) on their own operations, but it was the G-2 section in 12<sup>th</sup> Army Group which was responsible to present a collated and analysed picture of the overall situation to Bradley. Especially because G-2 (Air) was established as a separate section, the G-2 section had to incorporate G-2 (Air)'s intelligence in the intelligence reports and briefings to Bradley. The operations of Ninth Air Force and their effects were under-communicated, both in the morning briefings and in the G-2 reports, which is a strong indication that the extent and effects of air operations were not fully comprehended in 12<sup>th</sup> Army Group's staff. Another indication that air operations were considered rather subsidiary to ground operations is how air operations are referred to in reporting instructions to First and

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<sup>92</sup> Each Fighter/fighter-bomber group had 3 squadrons of 12 aircraft each. Some days the squadrons had 11-12 hours flying time on mission. With one day a week for heavy maintenance, the squadrons in XIX TAC could sustain two missions of 12 aircraft per day.

Third Armies. In the Operations Branch' After Action Report, air operations is only mentioned once. Among 20+ paragraphs of detailed instructions regarding situation reports, it is said in a sub-section:

*Outline of operations of all elements, to include: . . .*

*(j) Air or naval operations – only when they directly affect the land operations.*

Although there was a separate G-3 (Air) section at 12<sup>th</sup> Army Group, in close cooperation with G-3 (Air) at army level, it was still odd that the main situation report should not contain a permanent section on air operations when each army had permanently hundreds of fighters/fighter-bombers in direct support. An indirect indication of Bradley's detached relationship to air operations is the very scarce reference to the Air Commanders in his memoir of the war (Bradley, 1980). Lieutenant General Brereton and Major General Vandenberg are hardly mentioned<sup>93</sup>. Bradley mentions the planning of the air support to operation COBRA, and although he refers to several cases where he discussed ground operations in August with other commanders of ground forces, he does not mention any discussion on air operations with the air commanders. However, when he discusses the German counter-attack at Mortain on 7 August, he mentions the efforts of Allied air and especially RAF's rocket-firing Typhoons. He also discussed the need of air support to release the reserves from Third Army, but this was with his G-2 and G-3. In the two chapters regarding the breakout and pursuit to the Seine, he mentions the Army- and Corps Commanders continuously as well as his G-2 and G-3, but never mentions Brereton or Vandenberg, nor Quesada or Weyland. This probably reflects an understanding among Army officers that air forces were considered mainly as a supporting arm to ground formations, more than an individual service. This might have influenced how he looked upon their abilities. There is also an indication that Brereton had some problems in his command, maybe influencing the relationship between Bradley and Brereton. When Hansen comments on Vandenberg's succession of Brereton he records; *Brereton had obvious difficulties* (1944, p. 6 August).

5 August Brittany was completely cut off as VIII Corps captured Vannes; and attack was started on St. Malo's defences (Director\_Historical\_Division, 1946, p. 14). First Army approached Vire but was still not able to occupy the town. However, the advance on First Army's right had more progress, and together with Third Army's left started to form the

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<sup>93</sup> Lieutenant General Lewis H. Brereton was CG Ninth Air Force until 8 August when he was succeeded by Major General Hoyt S. Vandenberg (George, 1945, p. 161).

southern bend in what was to become the “Falaise Pocket”. XV Corps sped south and south-east and occupied Mayenne and seized a bridge over the river. The Corps also reached the outskirts of Laval. Patton planned to assemble XX Corps at Vitré (Patton, 1945, p. 5 August), east of Rennes.

The capture of Brest took three US divisions until 19 September to complete, and the garrisons at Lorient and St.Nazaire held out until the end of the war, tying down one US division and a large number of Forces Francaise de l’Interieur (Bradley, 1980, pp. 366-367). However, from this point I will leave the VIII Corps’ operations in Brittany as the situation there was contained and had no further bearing on operations further east apart from units tied down there.

G-2 reported movement of units from southern France towards the AOO, probably the 338. and 708. Infantry Divisions (Sibert, 1944f). From the Rennes area it was reported that rear-echelon troops were being committed to the front to stem the US advance. Nothing was reported on the enemy at the XV Corps front.

### 9.5 Operations Sunday 6 and 7 Monday August

On 6 August *Letter of Instructions Number 3* (LOI No. 3) gave an assessment of the enemy course of action. The enemy was expected to withdraw behind the line Laval – Mayenne and extending it to the south towards the Loire. However, the enemy was assessed capable of assembling at least an armoured corps for a possible attack from Domfront towards Avranches (Allen, 1944p). This assessment was quite correctly reflecting the German plans, revealed by Ultra which warned of an imminent attack by four panzer divisions towards Avranches (Hinsley et al., 1988, pp. 245-246). This study has not revealed when LOI No. 3 was released, but the warning was sent by emergency signal at 1330 hours 6 August, probably in time to reach 12<sup>th</sup> Army Group HQ for inclusion in the enemy capability. However, 30<sup>th</sup> Infantry Division moving into the Mortain area was not directly warned of the imminent attack, probably because Ultra was not available below army level and could not be directly acted on without other intelligence available to hide the source of Ultra. Previously, the G-2 Periodic Report had pointed directly to agents and air-reconnaissance, but this time it did not reveal anything about the expected German attack. It only showed that 1. SS Panzer Division and 116. Panzer Division had been relieved from the front line, but did not mention that these divisions were then available for a possible counter-attack (Sibert, 1944g). This had been an assessment strengthening the course of action already given in LOI No. 3 and should have been mentioned in the report to give a reason for a “heads-up”, which First Army could have



emphasized for its units in the Mortain area. Although not possible to pass on below Army, First Army had the Ultra intelligence and acted upon it by getting its Army Artillery into position to support the divisions around Mortain.

6 August First Army continued to press east and extended its front to the southeast, relieving Third Army in Mayenne. Third Army's XX Corps started operations and advanced east of Rennes south towards the Loire (Director\_Historical\_Division, 1946, pp. 16-17). XV Corps was relieved in Mayenne and occupied Laval. When 90<sup>th</sup> Infantry Division left the city for Le Mans, it encountered 9. Panzer Division moving to retake Mayenne. Bradley was contemplating to build up supplies between Domfront and Le Mans, hoping to advance on Paris by September (Hansen, 1944, p. 6 August). He expected the enemy to defend Paris because of many supplies in the city, and he was preparing plans for a comprehensive attack also employing an Allied Airborne corps. He was talking about a push past Paris and then to the north, cutting off the German armies in Normandy. This strongly indicates that he was not envisioning the rapid development of events leading to a possible pocket around Falaise.

Jumping off 7 August 0100 to avoid the Allied Air Forces, the German armored spearheads were able to penetrate 6 miles into the US lines at Mortain. Although the ground forces fought hard, the German attack was contained to a large part by the Allied air forces that had advanced warning by intelligence. 7. Army war diary read (Craven & Cate, 1951, p. 249):

*The attack has been brought to a complete standstill by unusually strong fighter-bomber activity . . . The attack has not made any progress since 1300 hours because of the large number of fighter-bombers.*

The success of the Allied air operations was also revealed during the fighting by Ultra. Responding to requests from the panzer divisions for air cover, the GAF replied that its planned strong fighter efforts had been stopped by heavy air battles all the way back to its air fields (Hinsley et al., 1988, p. 246). German ground units The LOI No. 3 assigned 5<sup>th</sup> and 35<sup>th</sup> Infantry Divisions to Third Army, strengthening the southern thrust. However, on Bradley's order Patton kept three divisions around St. Hilaire during 7 August in case of an emergency around Mortain (Patton, 1945, p. 7 August). The same day XIX TAC had been augmented to nine fighter-bomber groups (Weyland, 1944, pp. 8, Part II), further strengthening support to Third Army. 7 August XX Corps advanced towards Angers but was stopped west of the city by determined resistance. XV Corps advanced on several routes towards Le Mans and encountered opposition, hindering XV Corps in occupying the city. On 6 August General



Montgomery issued orders for 1 Canadian Army to attack on the night 7-8 August south from Caen and seize Falaise (Bradley, 1980, p. 374).

### 9.6 Operations Tuesday 8 and Wednesday 9 August

8 August Bradley got a weather forecast which promised good flying weather for several days. On this information he released Third Army's divisions held in reserve around St. Hilaire, as air power then is available to support First Army's hard fighting divisions at Mortain (Bradley, 1980, p. 374). As a response to the German attacks at Mortain, and after coordination with Montgomery, 12<sup>th</sup> Army Group issued a new *Letter of Instructions Number Four*. 21<sup>st</sup> Army Group was to attack from north towards Conde and Falaise and 12<sup>th</sup> Army Group from south, First Army turning on Domfront and Third Army on Alencon and Sees.

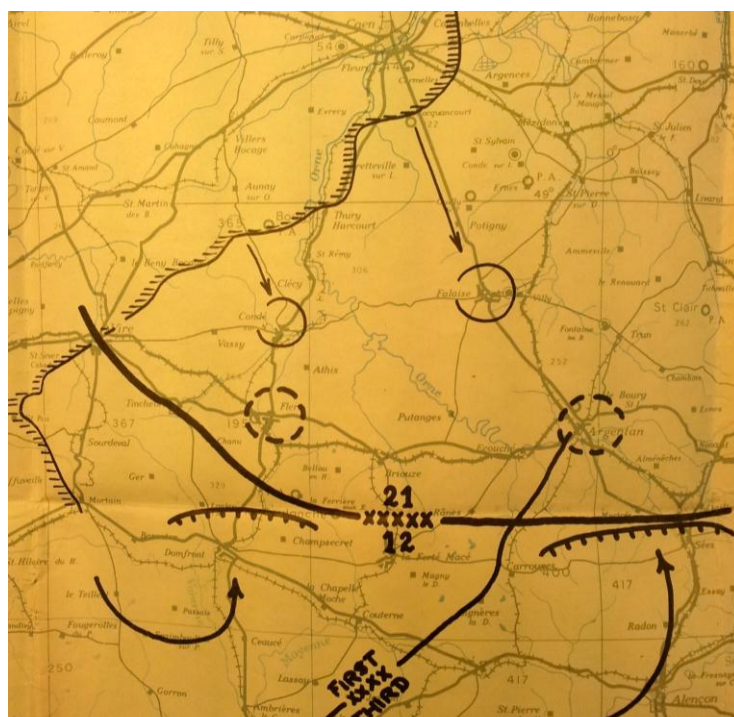
8 August First Army fought hard along its whole sector. Third Army with XX Corps moved on Angers and Chateaufort-sur-Sarthe, 20 kilometres northeast of Angers. XV Corps surrounded Le Mans and started to clear the city.

Ultra Intelligence was plentiful and disseminated fast between 8 and 21 August (Hinsley et al., 1988, p. 254).

On 9 August Bradley was briefed that there had been a large movement of tanks eastwards away from the

Mortain area on 8 August, probably a withdrawal (Allen, 1944i). 106<sup>th</sup>

Cavalry Group was deployed to screen the gap between Mayenne and Le Mans (Patton, 1945, p. 9 August). First Army occupied positions south and southeast of Vire, and continued bitter fighting around Mortain. Third Army's XX Corps moved on Nantes and surrounded Angers. XV Corps occupied Le Mans and swung the attack north towards Alencon, two armored divisions in front and two infantry divisions following behind and on the flanks of these. Crossings over the Orne River were secured in the evening (Director\_Historical\_Division, 1946, p. 25). G-2 reported 9 August that two German divisions from the south of France could be expected to arrive in the AOO, and heavy traffic out of Paris towards the AOO is reported



Map 4 - Segment of Operations Map, Annex 1 to Letter of Instructions Number Four. Source: (Allen, 1944q)

(Sibert, 1944h). However, there was no further analysis on what the traffic was or when it could reach the AOO.

### 9.7 Operations Thursday 10 and Friday 11 August

10 August Bradley was briefed that 708. Infantry Division had advanced on Mayenne (Allen, 1944j). The divisions expected to move to the AOO from southern France was 258. Infantry Division and 157. Training Division. Two pieces of information which should have been analyzed, but were not, were that Angers and Nantes were heavy mined. This indicated that the enemy wanted to delay and tie down the US forces, and most probably that they did not intend to return to these cities. The consequence would be that the US forces could screen the Loire with very few troops. Maybe this had been the assessed enemy course of action, but the job of the G-2 section is to provide intelligence which strengthens or weakens different courses of action to narrow them down so that the commander can optimize the use of his forces.

10 August was the first time the morning brief to Bradley contained an overview of the actual day's ground operations. A general trend of the morning briefings until then was that they were focused on what happened the previous day and had nothing on the plans for the actual day or subsequent days. The morning brief therefore gave little as platform for planning and coordination of activities. The Air report in the briefing had contained sufficient information on the actual day's operations since 9 August, and from 10 August it also contained information on the actual day's ground operations, although this was poorly put together. Part of XV Corps was said to move on Avranches, when they were moving on Alençon; the other part of XV Corps was to *move on to reach its objective* without mentioning what that objective was (Allen, 1944j).

The brief would of course be held on a map, where the commander could see for himself that the places were confused. However, that would require that the place names had been highlighted on the map and/or that there had been a terrain brief pointing out the relevant places before the brief. Such mistakes would contribute to confusion and less trust in the staff work by the commander. If that happened, the commander would start to rely more on his own judgement than the staff's assessments, eventually leading to less optimized decisions. In staff work, the devil is in the details, and it requires precision. Such errors give an indication as to the level of training and professionalism of the staff. These kinds of errors have not been disclosed in the G-2 reports. The question then is whether the commander read those reports and based his assessment of the G-2 section on those reports and otherwise on meeting the

personnel themselves, or if he was primarily basing it on the presentation of G-2 material at the Commander's Briefing? As Bradley says that he depended on his G-2 to keep him informed on the enemy capabilities (Bradley, 1980, p. 464), it is most probable that he had confidence in his G-2.

Early on 10 August Ultra revealed a plan to renew the attack towards Avranches from Mortain with the remnants of seven panzer divisions supported with artillery from army (Hinsley et al., 1988, p. 256). However, on 11 August Field Marshal von Kluge told Hitler that the attack on Mortain was untenable and that there was a serious threat that his forces could be encircled by such a manoeuvre that the Allies were actually trying to achieve, attack on Falaise and Argentan. Awaiting Hitler's confirmation, he gave preliminary orders to withdraw Seventh Army's western salient and regroup the armored forces for an attack near Alençon on US XV Corps left (Pogue, 1954, p. 210). The same day Patton ordered XV Corps to push on from area north of Le Mans towards Falaise and continue until link-up with the British (Pogue, 1954, p. 213); and 5<sup>th</sup> French Armored Division reached Alençon. Third Army's drive north cut off all but one of the enemy's supply roads. 7. Army lost its rear installations, and 5. Panzer Army had to supply both armies (Pogue, 1954, p. 211). This aggravated supply status was partly picked up by Ultra, reporting ammunition and fuel shortages in I. SS Panzer Corps on 10 and 12 August (Hinsley et al., 1988, p. 258). Ultra also revealed the fighting strength of Panzer Lehr Division as barely fit for defensive employment (Hinsley et al., 1988, p. 259)<sup>94</sup>.

First Army was still fighting hard in the Mortain area and had slow gains further north. Third Army's VIII Corps dispatched elements to Nantes to relieve XX Corps which secures the line along the Loire (Director\_Historical\_Division, 1946, pp. 30-31).

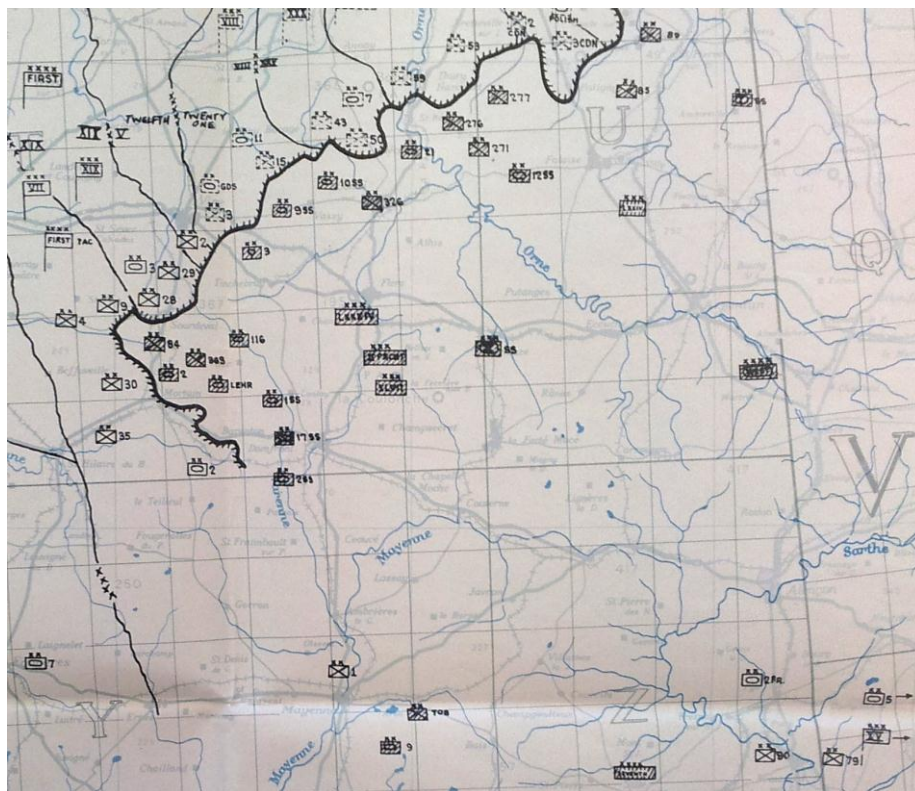
### 9.8 Operations Saturday 12 August

12 August 0915 Hours Bradley was briefed: *On the 3<sup>rd</sup> Army front there is little to report [about the enemy] (Allen, 1944)*. However, he was told that the advance met some resistance above Mayenne. Looking at the G-2/G-3 situations map from 1200 Hours, 1<sup>st</sup> US Infantry Division is there, but the German 9. Panzer and 708. Infantry Divisions are shown east of the

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<sup>94</sup> For future studies it is strongly recommended that the original Ultra intelligence reports are studied, as it is apparent from Hinsley et al that there were many status reports from German formations which were intercepted and revealed much information on combat strength and supply status. This information would be valuable to understand what situational picture the Allied Armies and Army Groups actually had (or should have had).

town. Also, it was reported by the G-3 section that 5<sup>th</sup> US Armored Division<sup>95</sup> had forward elements just south of Sees, which was 30 kilometres from where they were depicted on the situations map. It was a rather fragmented situation and the situations map had too little detail to cover the contents of the brief. Therefore, from 7 August the briefing had been conducted on a 1: 100 000 map (Allen, 1944g). It was further reported from the First Army front that there were indications of a



withdrawal from the area of Mortain. The relative strength was reported as 10 German divisions confronting the 20 US divisions, and 8 German divisions confronting 16 British divisions (Allen, 1944l). The German relative strength was not split between the forces in Brittany and in the area to become the Falaise Pocket, but it can be estimated as 2 German and 4 US divisions in that area.

Patton had told 12<sup>th</sup> Army Group HQ about his concern of the hole in the US line between St. Hilaire and Mayenne, and another gap southwest of Alencon, but they did not take any interest as Bradley felt that there was no danger (Patton, 1945, p. 10 August). Patton counted on the 7<sup>th</sup> Armored at Fougères to secure the western gap. Elements from 80<sup>th</sup> Infantry Division was used to bolster the line southwest of Alencon (Allen, 1944k). On 12 August Patton sent XX Corps to protect the right flank of his XV Corps. XX Corps was to advance on Dreux between Alencon and Paris (Cummings, 1945, p. 27).

Because the enemy had continued his efforts and stayed at Mortain with large forces Bradley had decided to attack north on the Alencon – Sees – Argentan axis. Hansen further indicates

<sup>95</sup> The 2<sup>nd</sup> French and 5<sup>th</sup> US Armored, and 79<sup>th</sup> and 90<sup>th</sup> US Infantry Divisions were at this point gathered in the XV Corps.

that there was a discussion between Montgomery and Bradley on strategy, where Montgomery wanted a swing towards Paris and secure more terrain, and Bradley wanted a “short” swing along the mentioned axis. Bradley’s tactical solution<sup>96</sup>

*. . . is in conformity with a stated principle of warfare that primary objective is to destroy the enemy rather than conquer and occupy terrain (Hansen, 1944, p. 12 August).*

12 August 2300 Hours 12<sup>th</sup> Army Group’s G-2 reported that 5<sup>th</sup> US Armored Division attacking towards Argentan had run up against the German 9. Panzer Division 4 kilometre south of the city (Sibert, 1944i). 5<sup>th</sup> Armored was further in contact with the Panzer Lehr Division to its right and 708. Infantry Division on its left flank. 2<sup>nd</sup> French Armored Division had also made contact with the 9. Panzer Division. The G-2 Periodic report had for the first time an annex on enemy Order of Battle, giving a list of identified enemy divisions and their locations updated 9-12 August. However, four panzer divisions and two infantry divisions depicted on the situations map were not on that list, making it somewhat confusing what to think of either set of information. The annex did not provide any strength estimate of the enemy units.

In the evening of 12 August<sup>97</sup> Patton had called Bradley and asked for permission to go on beyond Argentan towards Falaise. The answer was (Bradley, 1980, p. 376):

*You’re not to go beyond Argentan. Just stop where you are and build up on that shoulder. Sibert tells me the German is beginning to pull out. You’d better button up and get ready for him.*

Patton had already ordered XV Corps to attack and they had started to advance towards Falaise, having reconnaissance elements within a few miles of Falaise (Patton, 1945, p. 13 August). However, the order was unequivocal so Patton ordered them to return to Argentan. Bradley gave the following reasons for stopping Patton (Bradley, 1980, p. 377) 1) he did not want Third Army to collide with Montgomery’s forces advancing southward risking

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<sup>96</sup> This is Hansen’s writing and it is not marked as a quotation. However, comparing with other passages where it is obviously Hansen’s own thoughts on proceedings and experiences, especially 12 August and 13 August contain passages with much precise detail and showing some tactical discussions which indicates they are either dictation or quite precise retelling of Bradley’s opinion. Hansen’s own passages are often in an oral language form.

<sup>97</sup> Patton did not record this decision until 13 August in his diary. The attack stopped in the afternoon 13 August (Blumenson, 1961, p. 505).



fratricide; and 2) Third Army already blocking a German withdrawal at Alencon, Sees, and Argentan, he doubted that Third Army could hold the line up to Falaise against a German break-out attack, risking to get overrun themselves. Bradley's G-2 warned him that the Germans were beginning to leave the pocket, underlining the threat of being "trampled". In his memoirs Bradley gives the German strength to nineteen divisions *stampeding to escape the trap*. However, there were more subtle factors as well; if Montgomery wanted help, Bradley wanted him to ask for it. Bradley was content with 12<sup>th</sup> Army Group's original objective (Bradley, 1980, pp. 377-378). It seems like jealousies regarding prestige also was a factor. Hansen mentions this was an issue between Bradley and Patton, and between the US and British officers several times throughout his diary 2-13 August.

Ultra revealed vital information on German assessments and plans on 12 August. Von Kluge had assessed that the Allies were trying to encircle his armies by a pincer movement from north and south, and that his weak forces would be unable to stop them. XLVII. Panzer Corps was planned to move to a position 5 kilometres south of Ecouchy (southwest of Argentan), but urgently needed fuel to be able to move 2. and 116. Panzer Division there (Hinsley et al., 1988, p. 259). At 1030 hours, emergency signals with Ultra revealed that there had been withdrawals from Mortain to free forces for a counter-attack towards Alencon (Hinsley et al., 1988, p. 260).

Was Sibert providing a precise analysis to Bradley? How strong a break-out attack should Bradley expect if Third Army closed the Argentan – Falaise gap? Taking the G-2 Brief at face value, German strength in the pocket was 7 ½ panzer divisions and 8 infantry divisions (counting 3 divisions as holding the right flank to the sea). An estimate would be that the German armies would need to keep their infantry divisions in the line to avoid a collapse of the front resulting in a rout, plus one panzer division to bolster the line. That would give 10 out of 11 German panzer divisions available for a break-out attack. It would take at least one day to extricate and organize this force for the attack, probably two due to the emerging fuel shortage and Allied air forces slowing down movements.

Lacking 12<sup>th</sup> Army Group's weekly intelligence summary, Third Army's estimate on German combat strength from 5 August is used as basis for the following analysis (Koch, 1944b). Koch's estimate gives effective strength in personnel and tanks. Losses between 5 August and 12 August are estimated thus: an average loss per day is calculated per division, giving 150/day. This is extrapolated, giving new estimated losses accumulated per 12 August. An assumption is that 90% of losses were inflicted in combat battalions. Combat battalions are

estimated at 800 personnel. Rounding up, this gives an effective strength from ½ infantry combat battalion in Panzer Lehr Division to 7 infantry combat battalions in 116. Panzer Division, with a total of 33 and an average of 3 per division. 9. Panzer Division's losses are estimated separately to 2 infantry and ½ tank battalion. Losses in tanks are estimated using the same method, except that 75 tanks makes up a tank battalion. This gives 10 tank battalions, and 2 heavy (Tiger) tank battalions, a total of 12. Here, each heavy tank is counted as two medium and 9. Panzer Divisions's tanks are included. Two of the tank battalions would have to be used to bolster the line of the infantry divisions. Allowing for 30% losses of artillery in the divisions and adding 10 GHQ artillery battalions, the German force would have 30 artillery battalions.

On the US side XV Corps had two armoured and two infantry divisions. XX Corps was moving up to the right with one armoured and one infantry division, and two infantry division under Third Army control was ordered up, one to each side. Allowing for a loss of 1 infantry and ½ tank battalion in losses in each division, and counting the actual assigned GHQ battalions, this gives a total of 8 tank, 25 infantry, and 17 artillery battalions in XV Corps and approximately the same in the next 4 divisions coming up for support. A comparison would give:

	Tank Battalions	Infantry Battalions	Artillery Battalions
<b>US Forces</b>	16	56	34
<b>German Forces</b>	10	30	30

This estimate is based upon intelligence available to 12<sup>th</sup> Army Group and the actual US troops at Argentan or on their way towards the area. This estimate is conservative regarding German strength. It would probably be very difficult to concentrate all panzer divisions for an attack, both because of the pressure on other sides of the pocket and because of Allied air forces. Allied air forces would also tip the balance drastically in favour of US forces, probably multiplying their force by 1,5 or 2. Each day the pocket would be closed, the supply situation would become increasingly more difficult for the German forces, decreasing their combat power rapidly.

A battle along the Argentan – Falaise gap would develop with ever more troops committed. The units listed above would not be available at the same time, but the US units would have a huge benefit that they were organized and could be committed as coherent units, while the German situation was that they were already committing their panzer divisions piecemeal at Argentan as they were on their heels due to the rapid US advance (Blumenson, 1961, pp. 503-

505). The battle would be heavy, but the US forces had also this advantage as long as they could continue the pressure towards Falaise.

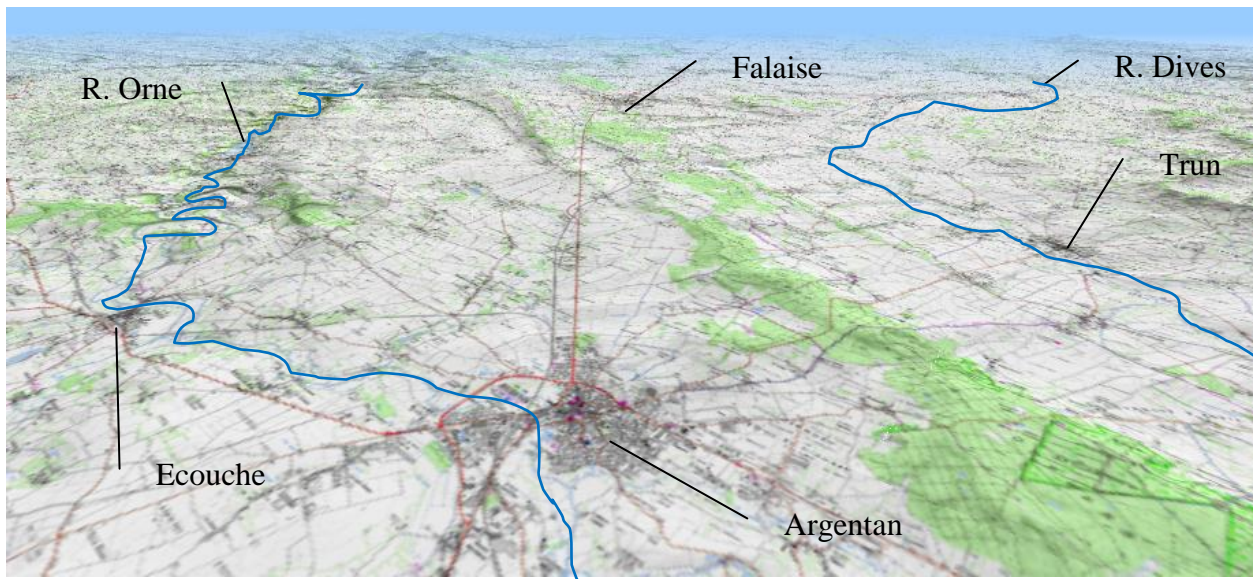
The last analysis Sibert should have done before advising Bradley was to make a terrain assessment. The basis for it was already available to the G-3 Section, covering the area of Argentan, but it might not have reached as far north as Falaise. The map below shows that the area between Sees and Argentan was suitable for defence both from west and east. Ridgelines created natural defensive positions. Between these, a US armoured reserve could counter-attack any breach, or even use the hedges in the area as ambush positions.



Map 6 - Looking northwest from Sees towards Argentan, 3D relief. Note wooded ridgeline to the west of Sees (marked light brown). It continues from the forest all up to Ecouche, numerous hedges replacing forest closer to Ecouche. Note also ridgelines (marked light brown) north of Sees running up past Argentan. Source: (L'Institute\_Geographique\_National, 2009).

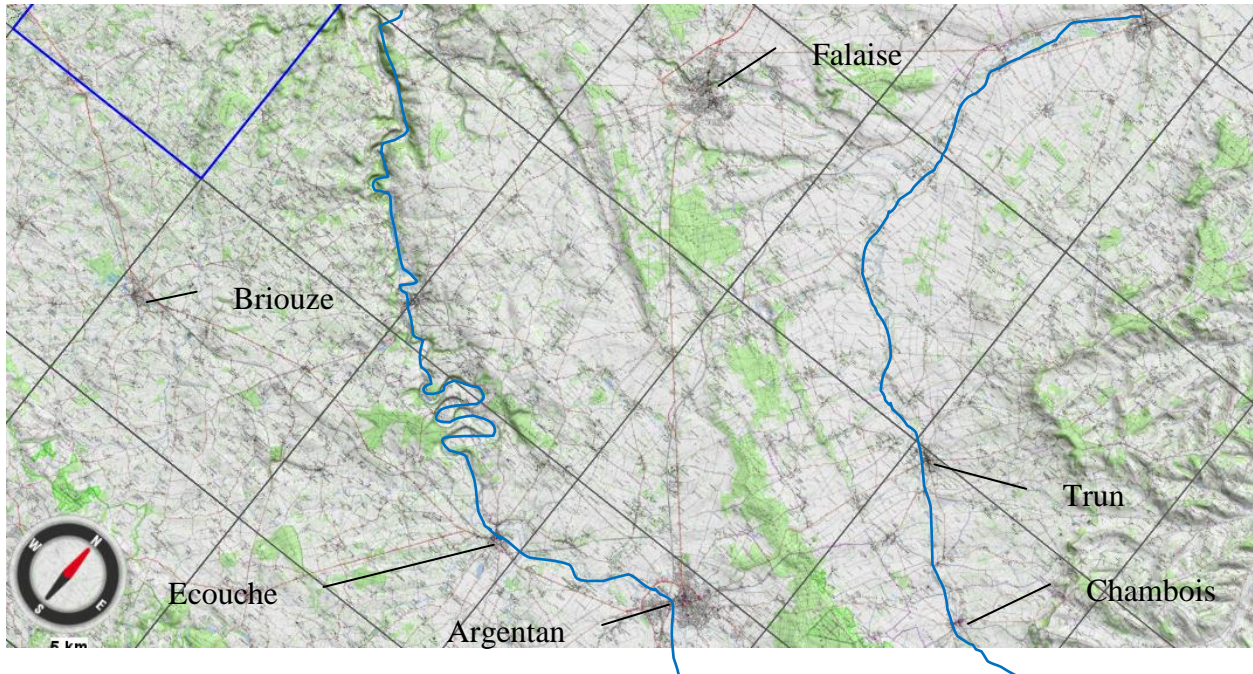
The next two maps shows that if the US forces could throw back the Germans across the Orne and Dives Rivers, they could establish defensive positions along these and also use them as clearly distinguishable bomb-lines. If this area was too wide, they could establish themselves on the ridgeline running between Argentan and Falaise to block the break-out from west. The weak German forces, at this point of time, to the east could be contained along the Dives.





Map 7 - Looking northwest from Argentan to Falaise; showing the winding river valley of the River Orne to the left, the wooded ridgeline between Argentan and Falaise, and the smaller vadable river Dives to the right (rivers highlighted blue). Source: (L'Institute\_Geographique\_National, 2009).

The last map shows that it would be more difficult to establish a coherent ring of defenses around Falaise. It would be easier to intercept the roads running east – west taking control of the high ground south and east of Falaise and establish positions between Falaise and Dives.



Map 8 - Area of Argentan – Falaise with the Orne (west) and Dives (east) Rivers highlighted. The terrain between Argentan and Ecouche is broken up by numerous hedges. The terrain elsewhere is also broken up by hedges, although not as dense. Grid-lines are 10 x 10 kilometers running north - south and east - west. Source: (L'Institute\_Geographique\_National, 2009).

There would be two natural points of attack by panzer divisions. The first would be in the relatively open and flat area 10 kilometres northwest of Argentan between the Orne and the ridgeline passing between Argentan and Falaise. The other would be in the open gap directly west of Falaise. However, this would at the same time be excellent killing ground for Allied air forces, so that the German attack formations would be restricted to bad flying weather and darkness.

Why Sibert did not provide any similar analysis to Bradley is only explainable by accepting that the planning horizon was too short to foresee it was required. Anyhow, it is possible to make in a couple of hours with maps and reports available, so it was probably due to poor analytic training and/or capability. If it was provided, but is not recorded, then Bradley was most probably over-cautious. Although he had received Ultra intelligence on a planned German attack against Alençon, there were already US divisions moving to bolster the left flank there. The status of the German panzer divisions were worse at this time than they were at Mortain, and that attack had been contained, although after hard fighting. Patton was willing to take the risk and continue the attack and achieve the ultimate results, but he would probably not have risked a whole army corps if he did not have assessed he had a reasonable chance of success. That he was willing to continue the attack indicates that Koch had utilized his own intelligence far better than Sibert had done.

### **9.9 Operations Sunday 13 August**

13 August Bradley was briefed that tactical reconnaissance reported heavy movement from Argentan, as well as movement south-eastward from Falaise (Allen, 1944m). Von Kluge did not give the order to pull out his forces until 15 August (Pogue, 1954, pp. 211-212). 21<sup>st</sup> Army Group's intelligence staff assessed that there had only been administrative echelons which had passed east through the Argentan – Falaise gap, and still the combat troops of five German army corps were still to the west of it (Hinsley et al., 1988, p. 260). However, that day there were 1000 vehicles trying to move north-eastwards in broad daylight from the area west of Argentan to the gap between this city and Falaise (Weyland, 1944, pp. 17, Part III). It indicated the start of a withdrawal. Some corps- and division commanders can have started to send rear elements out of the pocket, while keeping combat elements back, awaiting the final order to withdraw. Given Hitler's consent to withdraw on 12 August, word about this was probably awaited and disseminated throughout the commands very fast. With every German commander seeing the situation getting more desperate by the day, this situation was quite probable.

Patton was angry being stopped at Argentan and on the next day he talked with Bradley to let him send two divisions of XV Corps towards the Seine to secure crossings for their further advance. Bradley agreed to do this although he had just reasoned that the destruction of the German armies in the Falaise Pocket should be the key objective of the campaign. He also had reasoned that if the enemy was blocking the road to Falaise, Montgomery could order 1 Canadian Army to side-step the strongest defence and advance on Chambois to close the gap (Bradley, 1980, pp. 378-379). If Bradley was afraid of a German break-out overrunning Third Army, it was not a consistent decision to weaken the shoulder at Argentan with 50%. In the early afternoon 13 August, XV Corps attack at Argentan stopped.

13 August Bradley had lunch with Montgomery, and later he had dinner with Eisenhower. Hansen provides another possible piece of the explanation for the order to halt Third Army (Hansen, 1944, p. 13 August):

*It is suggested in G-3 that we were ordered to hold at Argentan rather than to continue the drive to Falaise since our capture of that objective would infringe on the prestige of forces driving south and prevent them from securing prestige value in closing the trap.*

However, it is difficult to accept this as part of the explanation because Montgomery was surprised Bradley had stopped the attack. On the other side, Bradley was critical of Montgomery as Bradley thought he should have pushed the attack on Falaise from the north more strongly and concentrated more forces there instead of committing them towards Vire (Bradley, 1980, pp. 377-379).

#### **9.10 Operations Monday 14 to Tuesday 21 August**

One of the last things von Kluge did before he was recalled to Germany and replaced by Field Marshal Model, was to order the withdrawal from the western part of the pocket to strengthen the front before Third Army's spearhead, and counterattack its left flank. Gradually the German open flank was bolstered, securing a gradual withdrawal to the east. On 17 August Bradley issued an order to renew the attack towards Chambois, but now it met a strong defense.

On 19 August General Eisenhower had discussed with Bradley and Montgomery and *defined their immediate objective as the destruction of the enemy forces west of the Seine* (Pogue, 1954, p. 215). In the evening forces from V Corps/First US Army linked up with troops from 1<sup>st</sup> Polish Armoured Division/1<sup>st</sup> Canadian Army by Chambois. It was estimated that 125 000 troops were still inside the pocket (Pogue, 1954, p. 215). 20 August II.SS Panzer Corps



attacked from the east simultaneously with a break-out attack from the west and opened a 3 kilometre from Chambois to the northwest along the Dives River (Gersdorff, 2004, p. 177). Fierce fighting erupted and the Allied forces were finally able to close the pocket the next day, but then half the encircled force had slipped out. However, huge amounts of material was left or destroyed inside the Falaise Pocket.

## 10 Findings

### 10.1 The intelligence system

#### 10.1.1 Analysis and Enemy Combat Strength

Proper analysis of the collated information seems to have been a shortage in 12<sup>th</sup> Army Group, often they presented information which could have been analyzed further. Intelligence staffs should primarily present intelligence adapted for use at the level of command it serves. The G-2 Section tried to avoid too much detail in its presentations to Bradley, but sometimes they did, instead of analyzing it and explain what it meant for the larger picture.

The G-2 Section was able to keep track of enemy Order of Battle (OOB) reasonably well, also able to warn of most operational reserves flowing into the Area of Operations (AOO). However, in their cooperation with the G-3 Section to present relative US versus enemy combat strengths, they were not sufficiently accurate. The main area where they failed to identify and/or keep proper track of was on the total of divisional troops *and* the General Headquarters (GHQ) Troops. The heavy tank battalions were mentioned in the reports, but the 30 GHQ artillery and rocket launcher (werfer) battalions<sup>98</sup> were never mentioned. Artillery was also an important factor to consider when comparing combat strengths.

#### 10.1.2 Air Power and Supplies

Enemy air power was neither mentioned as a possible strength multiplier or factor towards ground forces, probably due to the very low influence it had in the AOO. Allied air power on the other hand, was considered in operations planning. However, Battle Damage Assessment of the effects of air operations was never presented, neither on the effect of battlefield interdiction, nor on the attrition effects on German divisions and supply services.

The supply system and supply situation can be a multiplier or denominator to combat strength. Unless there was a hidden formula behind the enemy strength assessments, the effects of supply on enemy combat strength were never presented in any reports.

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<sup>98</sup> 7. Army had 6 GHQ artillery battalions, and 5. Panzer Army had 5 artillery and 19 werfer battalions (Zetterling, 2000, pp. 118-147).

### 10.1.3 Terrain studies

In the first period of operations, the Terrain sub-section was split and did not provide the level of services as they did later. The first archived terrain study of 12<sup>th</sup> Army Group/G-2 Terrain branch was on the terrain east of the Seine. However, they allegedly produced a study on the terrain of the battle area which was provided as a basis for planning to the G-3 Section. This study provided an overview of ridgelines, water-divides, and amount of natural obstacles along axes of advance. It could have been due to the presence of this study that terrain never was a part of any of the briefings or intelligence reports. However, judging from the total absence of discussion of terrain in the available G-2 reports and briefings, this factor was not analysed regularly in the Intelligence Branch.

I have to make the reservation though, that the above mentioned factors might have been presented in the *G-2 Weekly Intelligence Reports*, which I was unable to locate. Neither can I rule out that the G-2 Section's staff assessments for operational plans are archived elsewhere than in the G-2 decimal files, requiring further research in the archives.

## 10.2 Briefing to General Bradley

### 10.2.1 Precision

Precision in the Commander's briefing was generally poor. The language was especially poor in the beginning, easily misunderstood. An example (Allen, 1944b):

*The Germans were forced to bring the 21SS Panzer Division in the V Corps Sector which was east of CAEN.*

The (US) V Corps sector was not east of CAEN, the 21. Panzer Division was, and it was not an SS division which the Intelligence Branch knew well from the OOB lists they had before the invasion.

Another example from the same briefing:

*The 9<sup>th</sup> Panzer and 11<sup>th</sup> panzer Divisions – evidence of both moving up from NIMES to Battle area of BORDEAUX.*

9<sup>th</sup> Panzer was moving up from Nimes, and 11<sup>th</sup> Panzer was in Bordeaux. Bordeaux was however never a battle area. This was directly wrong information which would confuse the receiver. Another example was the confusion of the Seine running through Paris and into the sea at Le Havre, with the Sienne River east of Avranches. The names can be confused, but they were mentioned frequently and both were important for the operations so should not be confused during briefings to an Army Group commander.

Further examples are: VII Corps (US) was mentioned as in the British Sector once, where it newer was; and 7<sup>th</sup> Armored Division (UK) was briefed attacking west, when it was attacking east. 6<sup>th</sup> Armored Division was briefed as in XIX Corps' sector, while it was in VIII Corps (Allen, 1944h).

The staff was under time pressure and when the text was typed it could not be edited easily as today. These were speaking notes primarily for the staff. However, they were disseminated to SHAEF, and if they were to be read by liaison officers etc, they should have been more precise to avoid misunderstandings. This was just poor staff work.

### 10.2.2 Time Horizon

A general trend of the morning briefings until 10 August was that they were focused on what happened the previous day and had nothing on the plans for the actual day<sup>99</sup> or subsequent days. The morning brief therefore gave little initially as platform for planning and coordination of activities. This trend also includes planning. On 6 August Bradley was looking at plans for an attack on Paris and to cross the Seine, where the landing zones of the envisaged airborne assault was overrun by Third Army two weeks later. It indicates that the planning horizon of 12<sup>th</sup> Army Group HQ was a little short for this command level.

### 10.2.3 Air Operations

Another trend was that air operations were very patchy and scarcely covered at first. Whereas each corps in First Army was mentioned in separate paragraphs, all air operations of Ninth Air Force were usually covered in the same space as one of the army corps. The areas of armed reconnaissance, however, were graphically displayed (Allen, 1944d) (Allen, 1944e), and thus should provide some idea of the cover they provided for the ground forces. Although armed reconnaissance was displayed, only a few of the other operations were mentioned. The first "good" Air Report in the Commander's Briefing was 9 August. It was precise and comprehensive enough. However, there was never any Battle Damage Assessment (BDA) other than lists of claimed material destroyed which were not even added together. This could have been like this; On Outer Line of Interdiction 12 bridges un-passable, 5 passable for light traffic, 1 by Anger passable for heavy traffic etc. There was neither any assessment on the effect of air operations on the supply and mobility situation in the German armies and divisions and what this would mean for the operational capabilities of these formations.

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<sup>99</sup> The Air Report had something before this date, but it was also quite slim until 9 August.

### 10.3 An Independent Commander

There are indications that Bradley was a commander who did not use his staff that much for developing plans, but rather did much of the deliberation himself or with Montgomery and Eisenhower. Bradley depended on his G-2 to provide the enemy capabilities, but he used him probably far less to discuss and develop operational plans. When talking about his consideration of air support over Mortain on 8 August, Bradley did not write that he asked the opinion of his G-2 and G-3, he wrote that they concurred to his assessment (Bradley, 1980, p. 374). However, Bradley talked plans with them two days before, but when Hansen describes the development of the airborne/armor plan for the attack on Paris they talked about, it is only with the use of “his [Bradley’s] plan”, “he” views it calmly, weighs its chances and plots it deliberately etc. (Hansen, 1944, p. 6 August). Bradley was discussing plans very much with Eisenhower and Montgomery in person, not involving either the G-3 section at SHAEF or at 12<sup>th</sup> Army Group. Often, the long-range plans were developed during conversations with Eisenhower lasting to the early morning (Bradley, 1980, p. 354).

As Koch explains, there has to be mutual trust between the commander and his G-2, and the G-2 needs to know that his products are utilized and appreciated to be able to do a good job, to reach a little further. Although there is no clear cut evidence, there are indications that this relationship could have been better. If this is correct, it might have resulted in intelligence products which could have been better.

### 10.4 Intelligence Theory and Research

The term information superiority is mostly used when talking about *the intelligence battle* or *intelligence power*. It would provide useful gradation for analytical work if the set of terms from air power terminology were used to describe these phenomena. Reading up on the intelligence history background of World War II, a rough picture emerges that at the strategic level the Allies had clear *intelligence supremacy*, and at the operational level they had either supremacy or *intelligence superiority*. However, at the tactical level, the picture is less clear. The Allies had an obvious advantage with Ultra, but it is difficult to assess whether they had a better situational awareness and made more optimized decisions based on available intelligence than the Germans. There were also differences in maturity of intelligence organizations and capability among the Allies. Did the Allies have *intelligence superiority* or was there an *intelligence balance* at the tactical level?

It could provide new insights to the unclassified/open field of intelligence studies if future research looked at how effects of intelligence can be measured, and organizing these

factors/outcomes against the factors of combat effectiveness. Studies on combat effectiveness in World War II might provide a bench-mark and/or starting point for this research.

## 11 Conclusion

*It has been said that “After a battle is over people talk a lot about how decisions were reached, but actually there’s always a hell of a lot of groping around”. Such was the case, too, in Normandy until Montgomery and Bradley finally found the right way to defeat the German Army (D’Este, 1994, p. 507).*

Intelligence will never be an exact science and in this light, Bradley’s intelligence staff was able to describe the enemy situation really well regarding which enemy units were there and the flux of new units coming to the area of operations. They were tracking positions of enemy units quite well also. However, there were flaws when it came to the overview of General Headquarters units, i.e. units not organically belonging to divisions, but were assigned from Army and attached to divisions. These were independent armored-, engineer-, artillery- and anti-aircraft artillery battalions etc. which could drastically increase the combat power of infantry and armored divisions. Because the US Armies had a lot of these units this caused an underestimation of US combat power compared to German combat power. There are also strong indications that air operations were not considered as important as ground operations and that there were no assessments of the effects of air operations presented to Bradley or taken into strength assessments either. The same goes for supplies and the supply situation of German formations, which led to a further underestimation of US combat power compared to German.

Knowing that intelligence training was low before the war and that the US Army had to swell drastically during the war, it is reasonable to conclude that poor analytic training was the reason for insufficient analytic routines and performance. However, there were very good professionals such as Brigadier General Koch, G-2 in Third Army. Anyhow, an imprecise assessment of the actual US – German force relationship might have led to the decision to halt Third Army from closing the Falaise Gap, an objective they probably would have achieved estimating the available forces at both sides. Although there were additional factors which probably contributed to Bradley’s choice of decision, the assessment of comparable forces was mentioned by Bradley as a major factor. The risk of a collision and fratricide between US and Canadian forces was mentioned by Bradley as a factor besides the risk of being overrun. However, there were personnel and procedures in place to coordinate and avoid such



mistakes. Although always a possibility, fratricide was probably not the main reason for the decision.

Although not part of the research questions, for obvious reasons it is reasonable to ask whether US doctrine told that the most important task was to destroy the enemy army or to seize important terrain for further operations? Bradley contemplated this when he was considering what to do, and he was quite clear that the right thing to do was to destroy the enemy army. Bradley's decision to stop Third Army's enveloping attack, which would give this result, then looks inconsistent with this unless he thought the US – German force relationship unfavorable or too close to accept the risk. However, since Bradley said that he was concerned for Third Army's pincer's left flank, it looks even more inconsistent to order 50% of the US force at Argentan away to the east. This suggests there might have been other factors as well, besides the factor of comparable combat strength, which motivated Bradley's decision. Prestige issues, both between the US and British forces, as well as between Bradley and Patton, are mentioned in Hansen's and Patton's diaries. However, it is difficult to believe that it could have been more important to deny others the prestige of achievements, than to achieve it together. There was a suggestion that Bradley's First Army was slow to move and exploit an opportunity to envelope and destroy the German LXXXIV. Corps. It could be that Bradley was not enough forward-leaning or too cautious. He personally interfered in Third Army to secure its flank at Fougères, but he had been warned by intelligence that the enemy was planning an attack which strike in that area. However, he showed willingness to accept risks during Third Army's advance south and east, and it could be because of Ultra intelligence' ability to warn correctly of danger, that Bradley was careful about the warning of attack against Third Army's flank at Argentan.

Although General Bradley's G-2 said in another connection that few read his reports, there are no indications that Bradley did not heed his G-2's advice and used the Intelligence Branch' products as basis for his decisions. On the contrary, he says clearly in his memoirs that he had to rely on his G-2 for the enemy's capabilities because he had more than enough to manage other than that. Bradley acted upon the advice he got, although the advice should have been more accurate in our case.

Unfortunately I was not able to locate G-2's reports containing the assessments of the enemy capabilities, making it impossible to answer how Bradley's intelligence staff described probable reactions to 12<sup>th</sup> Army Groups efforts to encircle the German Armies. I recommend trying to rectify this in future studies.

Looking at the overall comparative strengths, it is difficult to see how the German armies' in Normandy could have inflicted a major defeat on the Allied armies in August. Taking some risks to be able to destroy the major part of the German forces could in the worst case result in temporary and minor reverses. This should have been the conclusion of 12<sup>th</sup> Army Group's intelligence analysts. Although the Operations Branch probably had to accept this conclusion before it was presented to Bradley, and not all pieces of information were available, there was enough information available to reach this conclusion. It is therefore reasonable to conclude that imprecise intelligence analysis was a major factor in Bradley's decision to halt Third Army's attack towards Falaise, thus letting many German soldiers escape from the pocket.

## Appendix A – US Organization of Army Group and Army Staffs

The US organized their staffs after the French “G-system” from Brigade up to Army Group and SHAEF. The Commander, responsible for all matters concerning his unit, had usually a Chief of Staff (COS) as his next in line. In a few instances there was a Deputy Commander, but usually not. COS was responsible for managing the staff and all administrative matters concerning the unit, so that the commander could focus on operational matters. Below the COS were the “G-heads”, who had a functional division of labor and their own responsibilities to make sure that the staff covered all aspects relevant to the unit. In addition to the “Gs”, there were specialists such as Chief Engineer Officer, Chief Artillery Officer, Chief Surgeon, Chaplain etc. However, none in the staff had command authority over subordinate units, this was only for the commander unless he delegated it due to leave of absence or death. Each of the G-heads had their own sections with staff officers to plan, execute and manage the processes necessary according to responsibilities. Sections such as the G-2 Section, could have specialists assigned in addition to the organically allotted personnel. For the G-2 Section this could double their number when on operations. The G-heads were :

- Assistant Chief of Staff, G-1: (Personnel officer) responsible for all matters concerning personnel; replacements, leave, recommendations for promotion, rewards, etc.
- Assistant Chief of Staff, G-2: (Intelligence Officer) responsible for all matters concerning intelligence and security.
- Assistant Chief of Staff, G-3: (Operations Officer) responsible for planning and management of operations.
- Assistant Chief of Staff, G-4: (Logistics Officer) responsible for all matters concerning logistics.
- Assistant Chief of Staff, G-5: (Civil Affairs Officer) responsible for all matter concerning civil affairs.

For an overview of 12<sup>th</sup> Army Group Headquarters organization, see (Landon, 1945).

## Appendix B – Outline of Operation OVERLORD

Source: (Historical\_Section\_of\_the\_G-4\_of\_the\_Communications\_Zone, ?)

*This manuscript was prepared by the Historical Section of the G-4 of the Communications Zone, European Theater of Operations (COMZ, ETOUSA) as volume seven of its multi-volume manuscript organizational history.*

Here, an extract of the first part of the manuscript is presented, covering the Concept of Operations and description of the Phases of the operation.

### PART I: OUTLINE OF OPERATION OVERLORD

#### TAB I: OUTLINE OF TACTICAL PROBLEM

##### 1. OBJECT

The ultimate mission of the Commanding General, ETOUSA, is the total defeat of Germany. The object of Operation OVERLORD is to mount and carry out an operation with forces and equipment established in the United Kingdom and with target date as designated, to secure a lodgement area on the Continent from which further offensive operations can be developed. This will be part of a concerted assault upon German occupied Europe from the United Kingdom, the Mediterranean and Russia.

##### 2. GENERAL INFORMATION:

The operation will be executed in two phases:

###### Phase I:

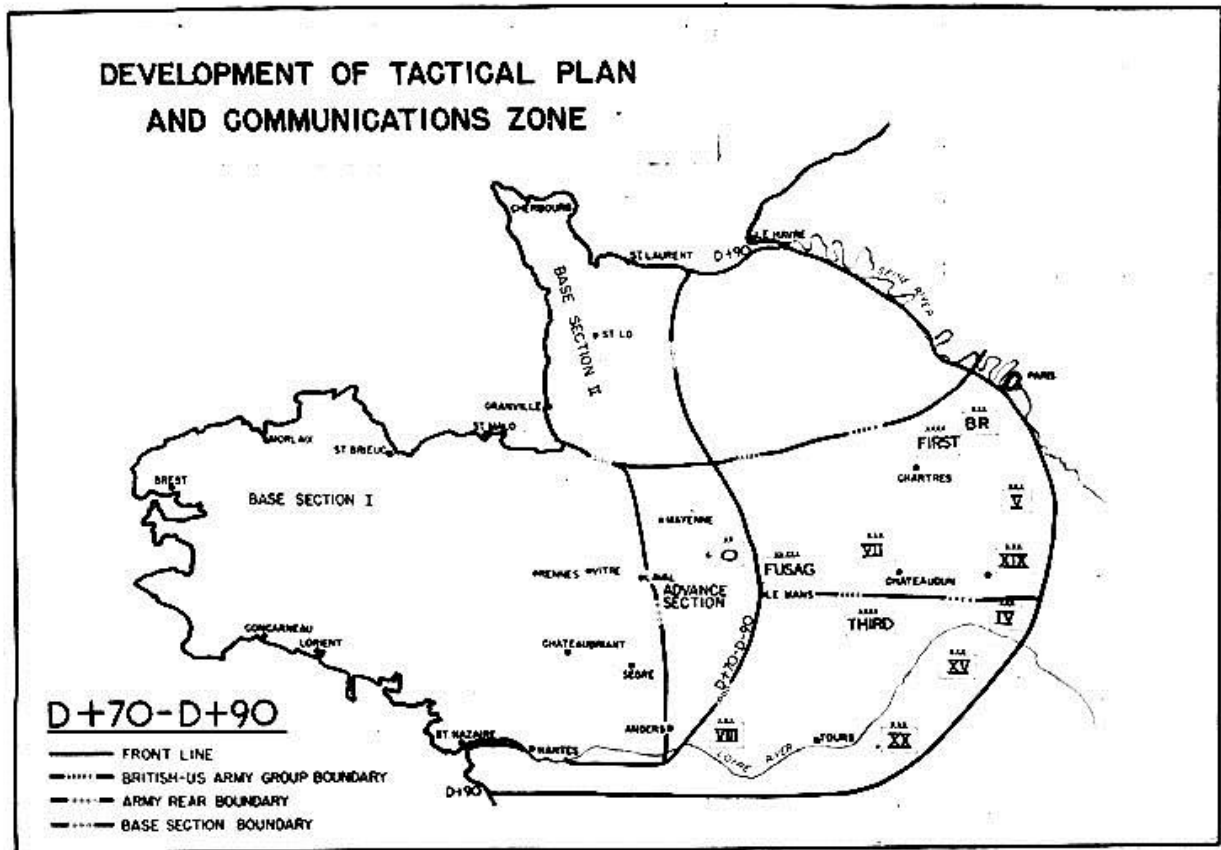
The assault and capture of an initial lodgement area, including the development of airfield sites in the CAEN area and the capture of CHERBOURG.

###### Phase II:

Enlargement of the area captured in Phase I, to include the Brittany peninsula, all ports south to the Loire (inclusive) and the area between the Loire and the Seine.

Phase I and some parts of Phase II will be executed by U.S., British and Canadian Forces assigned or attached to 21st Army Group.

At a time to be designated by the Supreme Commander, the First U.S. Army Group, as such, will take over certain areas, missions and U.S. Forces then under 21st Army Group.



### 3. ALLIED FORCES AVAILABLE:

On the target date it is estimated that there will be available in United Kingdom:

#### Land Forces:

21 U.S. divisions (13 Infantry, 6 Armored, and 2 Airborne), 17 British divisions (10 Infantry, 5 Armored, and 2 Airborne) and supporting troops of both Forces.

#### Air Forces:

331 U.S. Squadrons (214 in Eighth [Strategic] Air Force, and 117 in Ninth [Tactical] Air Force) and 220 British Squadrons. Figures for each Air Force include squadrons of all types.\*

### 4. MAJOR CONDITIONS AFFECTING THE SUCCESS OF THE OPERATION

An operation of the nature and size of operation OVERLORD has never previously been attempted in history. It is fraught with hazards, both in nature and magnitude which to not obtain in any other theater of the present world war. In order that the operation may have a reasonable prospect of success, it is assumed that certain conditions must exist concerning the major obstacles. These conditions are:

### German Fighter Strength:

There will be an overall reduction in the German fighter force to ensure necessary air superiority. Recent figures on destruction of German fighter production capacity and of fighters themselves in aerial combat are encouraging; however, it must be remembered that the effort of the German Air Force on the target date need not be sustained as the battle for the lodgement area will be won or lost in the first few days.

### Coast Defense:

The German Coast Defense has been designed primarily to delay access to principal ports. Our landing will be made presumably in a lightly defended area as the Germans consider a landing there likely to be unsuccessful because of its distance from a major port.

### German Land Forces:

The German defense policy is to defeat any attempted invasion of France and the Low Countries on the coasts. Offensive reserves are accordingly located within striking distance of the most vulnerable parts. It is assumed that, on D Day, German divisions in reserve will be so located that the number of first-quality divisions which could be deployed in the CAEN area to support the divisions

PLANES: \*Fighters - 2700; Hv Bombers - 1956; Med Bombers 456; Lt Bombers - 171; Photo Recon - 128; Plus Reserves.

holding the coast should not exceed three divisions on D-Day, five divisions by D+2, or nine divisions by D+8.

### Surprise:

Though it should be possible to effect a considerable measure of tactical surprise, it will be impossible to achieve strategical surprise. Every effort must be made to draw the enemy's attention to our most favorable landing place, Pas de Calais, and away from our actual landing point, the CAEN area.

### Beach Maintenance:

Maintenance over beaches is a paramount in this amphibious operation. It is calculated that making full use of every captured port, large and small, 18 divisions must be maintained over beaches during the first month of operations, 12 divisions during the second month, and a number rapidly diminishing to NIL during the third month. Therefore, it is imperative that

adequate measures be taken to provide sheltered waterways by artificial means, facilities on captured beaches for landing of vehicles and for the repair of damage to the beaches themselves by continual grounding of craft.

#### 4. THE ASSAULT:

The plan for the initial landing is based on two main principles: concentration of force and tactical surprise. Three Regimental Combat Teams of the First U.S. Army on the right, and five Brigade Groups of the British Second Army on the left, along with supporting air and naval forces, will make the assault in the CAEN area. The assault will be supported by airborne divisions. This will be followed by the early capture and development of airfield sites and the capture of the port of CHERBOURG, which will complete Phase I of the Operation.

It is these early days of the operation that will spell success or failure. Here is the race between the build-up of forces and supplies by Allied Forces and the bringing up of reserves by the Germans.

#### 5. PHASE II -

##### First Army:

After capturing CHERBOURG, and with its left flank protected by the British Second Army, the first U.S. Army will drive to the south and southeast to cut the

Brittany Peninsula and secure the ports of NANTES and ST. NAZAIRE. One Corps will turn west to clear up the peninsula.

Then, First Army will advance the line of the Upper Seine prepared for further action to the northeast.

##### Third Army:

Third Army will land on the continent as soon as possible after First Army, probably about D+35-D+45 and will capture the Brittany peninsula and open the Brittany ports, unless this has already been done by First Army. After clearing the Brittany peninsula Third Army will concentrate on the right of the First Army, prepared to operate to the east, either in close conjunction with First Army or by swinging south of the Loire if a wider envelopment is feasible.

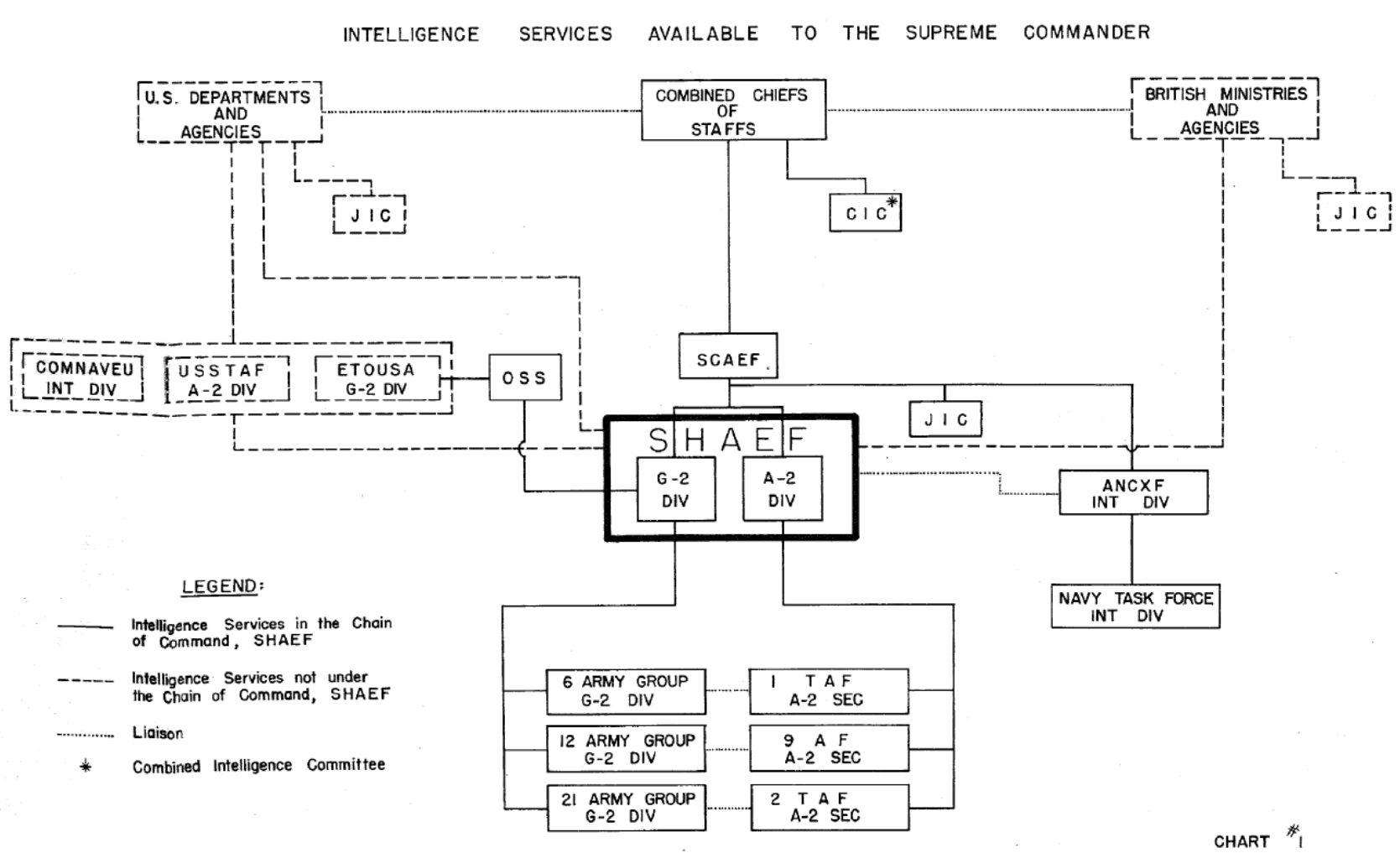
Situation on D+90:

By D+90, occupation of the lodgment area is complete. U.S. and British Forces are on the Seine River, First and Third Armies are abreast, and First Army Group has been established as has a Communications line. Our forces are prepared for further offensive operations.



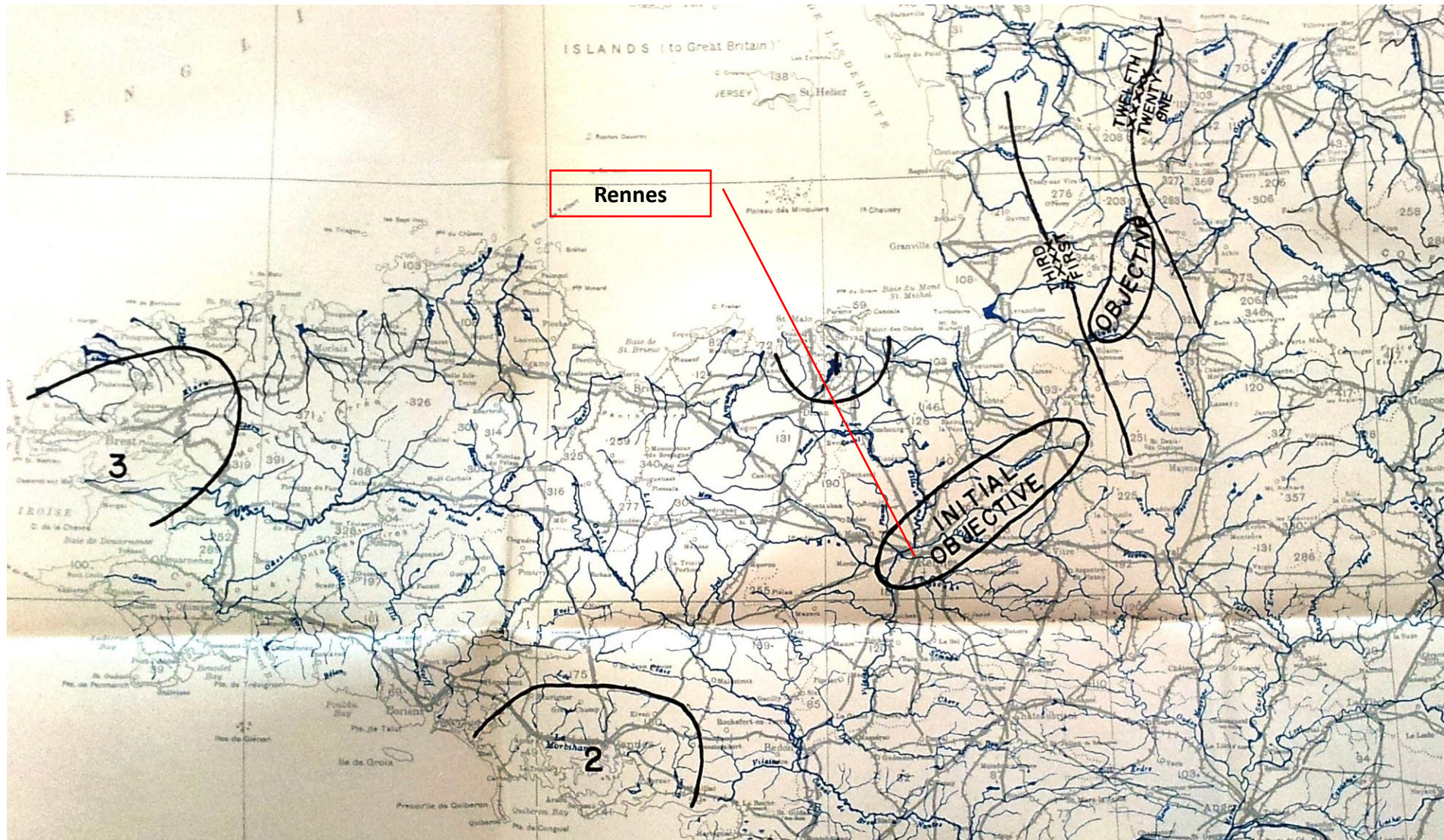
## Appendix C – Intelligence services available to the Supreme Commander, General Eisenhower

Source: (Schow et al., 1945, p. Chart # 1)



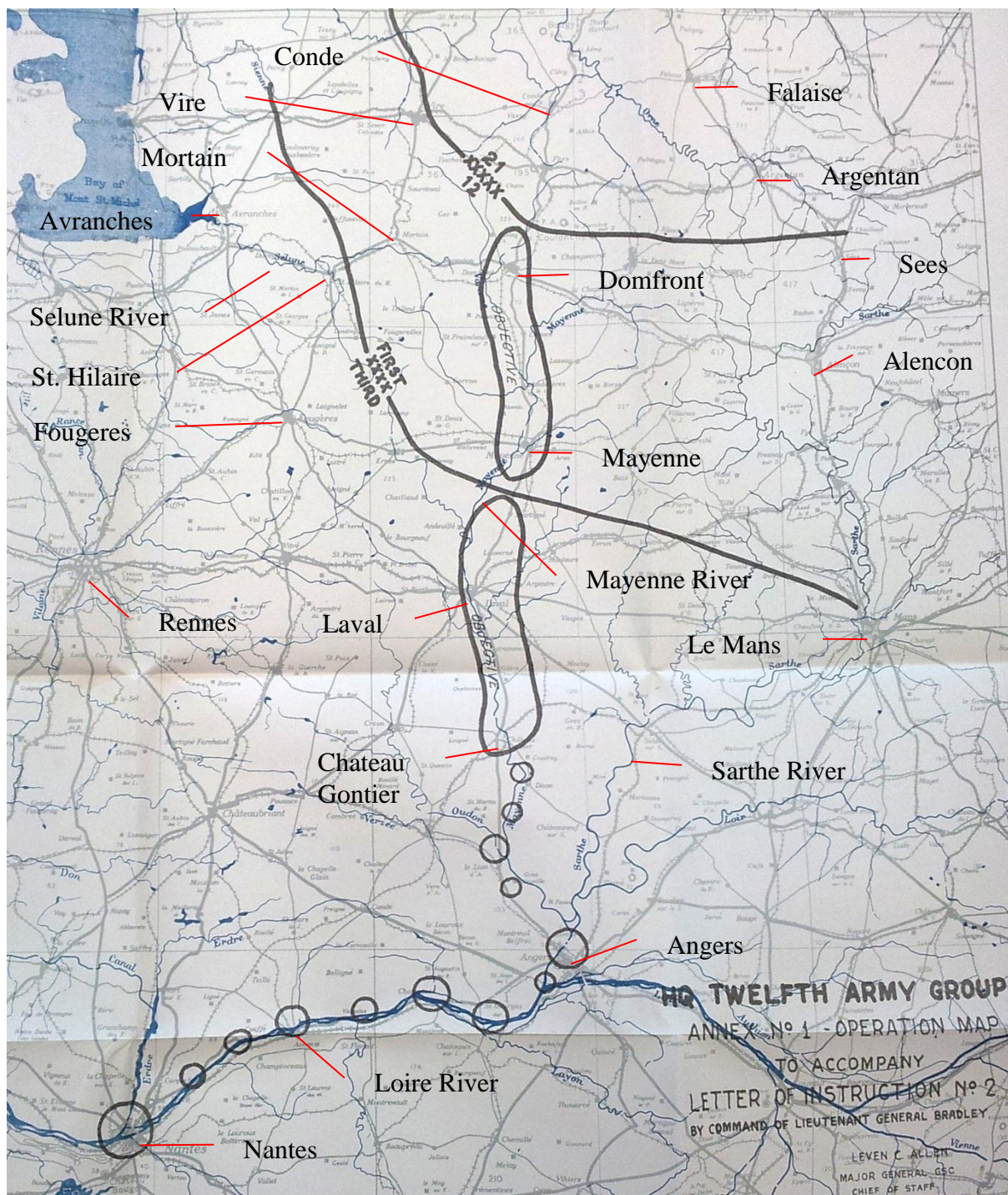
## Appendix D – 12<sup>th</sup> Army Group Objectives 1 August 1944

The map is a segment of Annex 1 – Operations Map, Letter of Instruction Nr 1 29 July 1944, 12<sup>th</sup> Army Group. Source: (Allen, 1944a).





## Appendix E – 12th Army Group Objectives 3 August 1944



Map 9 - 12th Army Group Objectives 3 August 1944, and Key Elements of Terrain. Sources: (Allen, 1944n, pp. 1-2, Annex 1), (Allen, 1944o, pp. 1-2, Annex 1).

## **Appendix F – Comparison of Estimated German and US Forces in a “Break-out Battle”**

### **Facts:**

US and German units available 13 August in Argentan area (Blumenson, 1961, pp. 503-505):

XV Corps; 2<sup>nd</sup> French Armored Division, 5<sup>th</sup> Armored Division, 79<sup>th</sup> Infantry Division, 90<sup>th</sup> Infantry Division.

Panzer Group Eberbach; 1. SS Panzer Division, 2. Panzer Division (elements, rest arriving 14 August), 9. Panzer Division (practically destroyed), 116. Panzer Division.

### **Assumptions:**

US and German units available D+1 (US troops already ordered towards the area 13 August )

XX Corps (US) available with; 7<sup>th</sup> Armored Division, 5<sup>th</sup> Infantry Division.

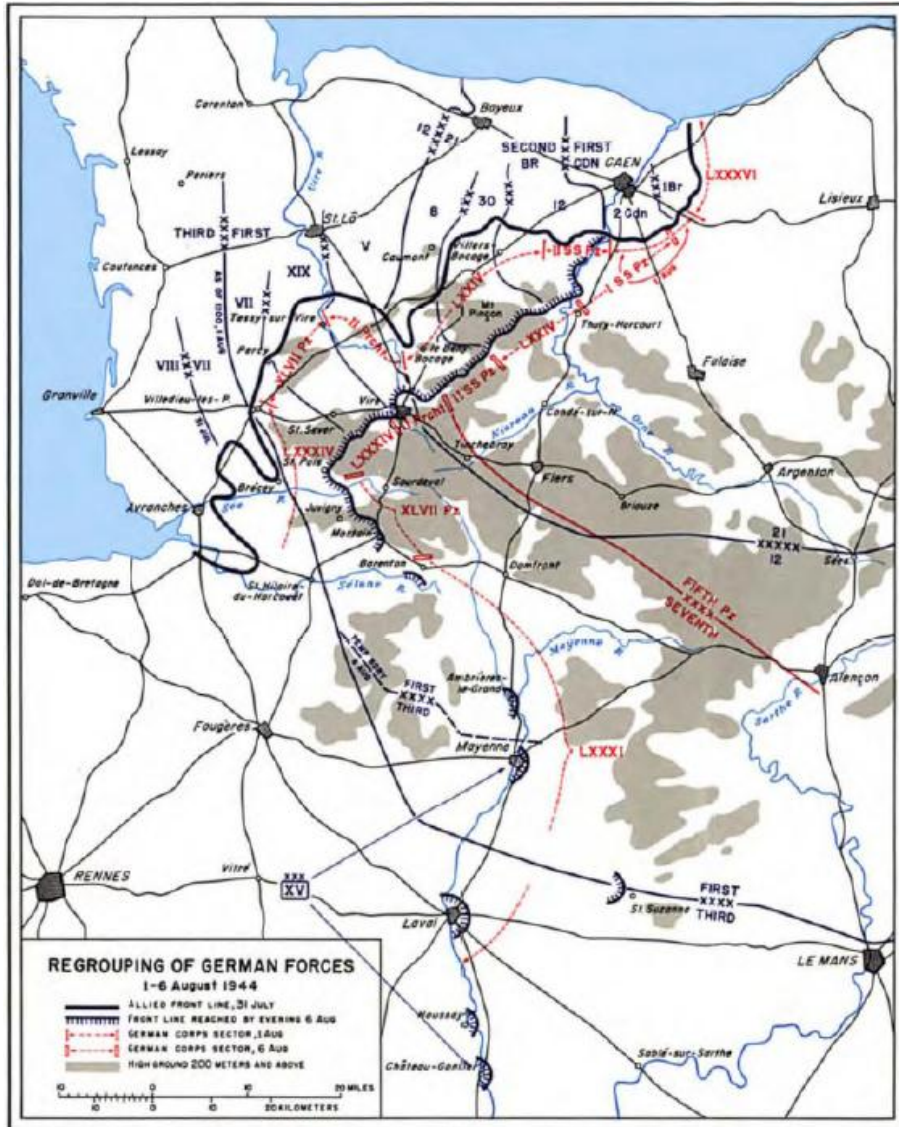
Under Third Army control; 35<sup>th</sup> and 80<sup>th</sup> Infantry Divisions.

6 German Panzer Divisions.



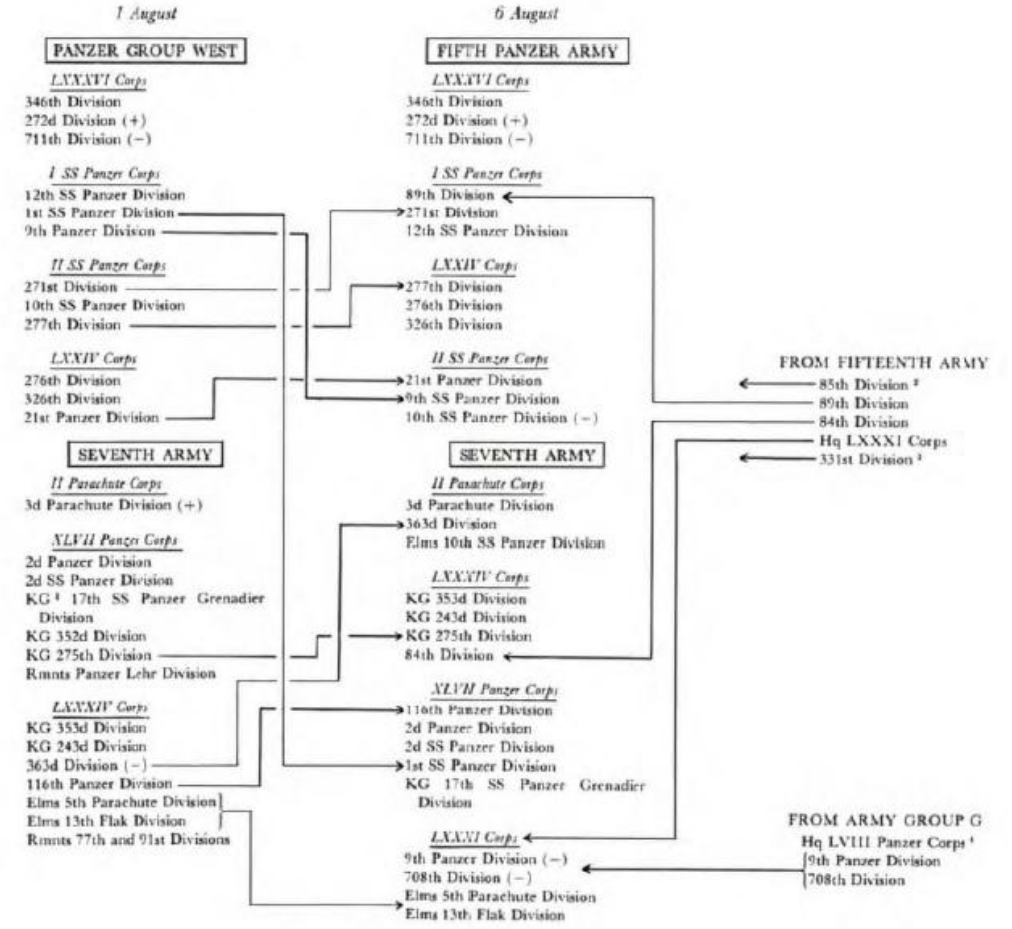
Appendix G – German Order of Battle 1 and 6 August 1944

Source: (Blumenson, 1961, p. MAP IX)



GERMAN ORDER OF BATTLE ON NORMANDY FRONT

1 and 6 August 1944



*Notes:*

- <sup>1</sup> Kampfgruppe
- <sup>2</sup> En route to Fifth Panzer Army. Leading elements south of Rouen, 6 August.
- <sup>3</sup> En route to Seventh Army. Leading elements near Briouze, 6 August.
- <sup>4</sup> Hq LVIII Panzer Corps assumed command of 271st and 277th Divisions on Panzer Group West front, 2 August. It was reassigned to Seventh Army, 6 August.

## Appendix H – Unit Reference Formats.

Numerous military units are mentioned in this study. To be able to distinguish nationalities and levels of command they are referred to differently. 12<sup>th</sup> Army group (US) is the formation this study focus on, and in particular its headquarters (HQ). It will be referred to as 12<sup>th</sup> Army Group. First US Army (First Army) and Third US Army (Third Army) were the subordinate commands of 12<sup>th</sup> Army Group. 21<sup>st</sup> Army Group (UK), commanded by General Montgomery, was the other Allied army group in France during the Falaise Pocket battles.

Several Army Corps were subordinated to the US Armies, sometimes being switched between the Armies according to the tactical situation. US army corps will be referred to using Roman numerals, such as XV Corps and XX Corps. The German army corps will be referred to similarly, but with use of punctuation such as LXXXVI. Corps. US Divisions and lower commands will be referred to as 5<sup>th</sup> Armored Division, 13<sup>th</sup> Infantry Regiment etc, and German divisions and regiments like 116. Panzer Division, 2. Panzer Grenadier Regiment etc. German battalions which were part of regiments will be referred to like I./24. Panzer Regiment, i.e. First Tank Battalion of 24. Tank Regiment; or when independent with full text and Arabic numerals such as SS-Artillery-Battalion 101 etc.

## Appendix I – Intelligence Disciplines, Subcategories and Sources

<b>GEOINT -- Geospatial Intelligence</b>	
-- Imagery	
-- IMINT - Imagery Intelligence	
-- Geospatial Information	
<b>HUMINT -- Human Intelligence</b>	
-- Debriefings	-- Source Operations
-- Interrogation Operations	-- Document and Media Exploitation
<b>SIGINT -- Signals Intelligence</b>	
-- COMINT - Communications Intelligence	
-- ELINT - Electronic Intelligence	
** Technical ELINT	
** Operational ELINT	
-- FISINT - Foreign Instrumentation Signals Intelligence	
<b>MASINT -- Measurement and Signature Intelligence</b>	
-- Electromagnetic Data	-- Radio Frequency Data
-- Geophysical Data	-- Radar Data
-- Materials Data	-- Nuclear Radiation Data
<b>OSINT -- Open-Source Intelligence</b>	
-- Academia	-- Media Broadcasts
-- Interagency	-- Internet
-- Newspapers/Periodicals	
<b>TECHINT -- Technical Intelligence</b>	
<b>CI -- Counterintelligence</b>	

Source: (JCS, 2003, pp. I-6). For more details on these subjects, see Appendix B in the same source.



## Appendix J – Example of 12<sup>th</sup> Army Group's Commanders Daily Brief

HEADQUARTERS TWELFTH ARMY GROUP  
APO #655

Commanding General's Briefing  
0915 Hours, 13 August 1944

G-2 Report:

We have no new reports from Brittany. No new developments at ST MALO except at one point at DINARD. BREST and LORIENT are still holding out.

VIII Corps. They have advanced against the 9th Panzer Division which they shoved up towards ANGERS. Also the LEHR and the 708th Division which is operating east of MAYENNE. We also contacted odds and ends of many different kinds of units, including naval personnel. They have been gathered together and they are employed in this area. A prisoner said the 8th of the 1st Corps is at ALENCON. It was formed north of the SEINE at ROUEN. This is the first identification in this area. They are apparently controlling the unit in this flank. The Commander is General KINTZEN. He was originally a cavalryman and commanded in RUSSIA. He helped form the first RUSSIAN Panzer group.

Identified various and sundry units going to ORLEANS. Many of them never showed up before in battle.

FIRST ARMY: In the First Army area there has been a slackening of resistance on their front and tactical reconnaissance reports heavy movements from ARGENTAN. They also report movement south-eastward from FALAISE.

21st ARMY GROUP: Last night reports from 21 Army Group are to the effect that there is a planned withdrawal all along their front.

North of the SEINE there are still movements.

G-3 Report:

Today is D plus 68.

In the 1st British Corps, the 2nd Canadian had very little activity. In the II Corps, the 3rd Canadian Division relieves the Polish Armored and the 4th which were in this section. The 2nd made advance. XII Corps, the 53rd Division has crossed the ODORNE RIVER. There is considerable fighting at THURY-DE-HARCOUET. The 59th made slight gains. XXX Corps, the 50th advanced about 6,000 yards. The town of CONDE is now under artillery fire. The line was the same in the Guards Armored. The 3rd advanced about 3000 yards.

In the U S Sector, 2nd Division made considerable progress. The 29th is now operational with the V Corps. 28th advanced rapidly to just north of the town of LA-MEULE-SUR-SARTHE. 9th Division made no contact with the enemy. "B" of the 2nd Armored resisted counter-attacks. 4th and 9th were re-grouping for the attack today. The 6th Armored is at MAYENNE.

-1-

EXHIBIT A



Commanding General's Briefing (Cont)

13 August 1944

Third Army: Elements of the French Armored are in the vicinity of ARGENTON. The 5th Division is at NONENT and ST LEONARD and is being followed by the 79th. The French Armored is split with one motorized RCT well in advance. VIII CORPS, the 6th Armored attack was made on BREST yesterday but there were only slight gains. The 83rd is at the CITADEL, where only slight gains were made. "B" of the 4th are containing LORIENT and 1 CC is at VANNES. Patrols have entered NANTES. The 8th is at RENNES with one element of the 83rd and one battalion of the 8th has elements in BREST. The 5th Division, less some elements, is at ANGERS. The 7th is 90% disbursed and moving.

RELATIVE FRONT LINE STRENGTH:

American: 21 Divisions in action: 14 infantry, 6 Armored, 1 French Armored.  
British: 16 Divisions in action: 10 infantry, 5 Armored, of which 1 Polish,  
1 artillery.

PLANS FOR TODAY:

The British plan to send 3rd Armored to attack the south east and hope to penetrate and exploit the gains by Polish and 3rd Armored.

The 2nd Canadian Division is to attack towards FALAISE.

The 50th is to continue the attack on the CONDE ROAD.

7th and 8th Corps are to maintain pressure.

U. S. SECTOR:

V Corps will attack to the south east. The remainder of our elements will maintain pressure along their line. The VIII Corps - 1st Division is to attack LA FERTE-MACE, and the 2nd and 9th will go to la ferriere MACE.

35th Division reverts to the 3rd Corps and will proceed from EVRON towards ARGENTON.

3rd Cavalry will push towards SILLE LE GUILLAUME. This will be spear-headed by 7th Armored Division.

We are getting our information from Phantom Patrols which were set up 3 days ago. It gives us advance information which is later confirmed by the various armies.

AIR REPORT:

Detailed report of AIR activity is not available. However, 3 bridges were bombed by 9th Air Force, and fighter reconnaissance on enemy battle fronts as far as the LOIRE RIVER and TOURS, and also south of PARIS was accomplished. Air operations will be centered on enemy battle fronts, especially their attempt to escape to the east.

Medium bombers are scheduled for attacks on road junctions south and east of the British line, with special attention to the FALAISE area.

Commanding General's Briefing (Cont)

13 August 1944

Extensive armed reconnaissance will be continued along the battle area and as far south as Chartres.

WEATHER REPORT:

Visibility less than 1 mile at early morning due to fog; improving to 2 miles by 9 o'clock and improving to 6 miles this afternoon.



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