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OPERATION FORTITUDE:

THE CLOSED LOOP D-DAY DECEPTION PLAN

by

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Preface

This paper represents a semi-formal study of the greatest deception operation of World War II, and possibly the greatest military deception operation in the history of warfare. This was a story that fascinated me from the first time that I had heard the remarkable story of Juan Pujol, the incredible Agent GARBO, who with no formal training deceived the vaunted German armed forces. It is a story that needs to be brought into the mainstream because this man, and men and women like him, ensured the defeat of the Third Reich during World War II.

I would like to thank Dr. Rich Muller of the Air Command and Staff College staff for his guidance and enthusiasm. He has made the drudgery of a research paper almost fun. I would also like to thank the staff of the Air University Library and the Air Force Historical Research Agency, both at Maxwell Air Force Base, for without them, little of my research could have been done. Finally, and most importantly, I would like to thank my wife Cindy, and my children Jenny and Lindsey; without their understanding and support, this paper would never have been finished.

Abstract

Operation FORTITUDE, the D-Day deception plan, was a near perfect plan used by the Allies during World War II to deceive the Germans as to the time and place of the Normandy invasion. This short research paper studies the methods and techniques used by the Allies, specifically the British Security Services, in the near flawless execution of the deception plan.

This paper also proposes that the plan was so well executed because it was a "closed loop" plan. That is to say that the British controlled not only the information going forward to the Germans, but they were also in the enviable position of being able to determine the exact extent of the Germans' belief in the veracity of the information that they were given. This was due to two factors: the British had complete control of all German agents in England by the second year of the war, and the British were able to read encrypted German message traffic, often as fast as the intended recipients.

In the final analysis, the Germans were completely outmaneuvered in the intelligence department during the Second World War. Through sloppy work on their part and the amazingly well manufactured deception story put forth by the Allies, the Germans were essentially blind while trying to defend the Normandy beaches.

The research for this paper was conducted solely using open-source material. Many of these were secondary sources, though others were recently declassified operational documents from the British and United States historical records.

Introduction

All warfare is based on deception.

Sun Tzu 1

The enemy must not know where I intend to give battle. For if he does not know where I intend to give battle he must prepare in a great many places. And when he prepares in a great many places, those I have to fight in any one place will be few.

Sun Tzu²

An army without secret agents is exactly like a man without eyes or ears.

Chia Lin³

As Sun Tzu and Chia Lin said many centuries ago, deception is at the heart of many successful military operations. By forcing the enemy to focus his attention in other locations, deception can be an effective force multiplier. By making the enemy guess at the time and place of offensive actions while feeding him misinformation, the enemy is kept off balance. The purpose of this research paper is to examine one of the largest and most successful deception operations of World War II, Operation FORTITUDE.

FORTITUDE was the code name for the Allies' plan to deceive the German leadership as to the time and place of the anticipated amphibious landings in occupied Europe. The overall plan itself was remarkably simple: to present compelling evidence that the Normandy landing was but one of a series of landings throughout North and Western Europe to take place in the summer and fall of 1944. What made the plan remarkable was the extent of its deception and the boldness of its cover story. This research paper will focus on these aspects of the deception plan.

³ Ibid., 198.

¹ Sun Tzu, *The Art of War* (Oxford: Oxford University Press, 1963), 66.

² Ibid., 98.

The plan was the brainchild of the British Intelligence Service's "Twenty (XX) Committee." The XX Committee formulated and executed the plan through many methods, including the "Double Cross System," where German intelligence agents in Britain were turned to work for the British Secret Intelligence Service (MI6) through the British Security Service (MI5). It was this genius in manipulating the many double agents that ensured a firm hold on German knowledge of the upcoming invasion. These agents, men such as GARBO with his 27 agent network, BRUTUS, and a host of others kept their Nazi case officers supplied with fabricated information, which was dutifully passed on to German Armed Forces High Command (OKW). The XX Committee also ran an impressive radio (wireless) deception plan, including an entirely fabricated United States Army Group led by the United States' most feared commander, Lieutenant General G. S. Patton. This paper will also investigate what the author refers to as a "closed loop deception system," where one is not only able to feed false information to the enemy, but to directly ascertain the extent of the enemy's belief in the information. To do this, the XX Committee first fabricated information to be fed to the double agents and to the wireless deception units. The agents then passed the information to their German controllers whose wireless units broadcast the lies, anticipating German Radio Intelligence interception. As the information filtered up through the convoluted German intelligence system, the XX Committee was able to use Ultra intercepts of the Enigma-coded messages, allowing them to evaluate the effect of the deception stories and modify those stories that the Germans did not believe. (Ultra was the security caveat given to the system of decrypting the German coded messages. Enigma was the brand name of the actual coding machine.)⁴ We will look at this amazing operation beginning with the XX Committee.

⁴ Ronald Lewin, *Ultra Goes to War* (New York: McGraw-Hill Book Co., 1978), 63-64.

Background

The XX Committee

In the years leading up to World War II, the German Intelligence Service (Abwehr) attempted to infiltrate agents into the British Isles. (Until the Reich Security Administration [RSHA] absorbed it in June 1944, the Abwehr acted as Germany's central intelligence agency.⁵ Until then, it had to compete with the RSHA as well as with Foreign Armies West [FHW]. The relationship between these competing intelligence services often hindered German intelligence efforts to the point of uselessness.) One of the first of these agents, Arthur Owens, offered his service to the British Security Service (MI5) and was turned into a double agent.⁶ (By double agent we mean an agent who is collaborating with the belligerent he is thought to be working against.) As the Abwehr began to gain trust in Owens, they supplied him with a covert transmitter and he became the point of contact for future agent infiltrations.⁷ In preparation for the planned invasion of England, the Abwehr stepped up its efforts to gain intelligence in the British Isles. Of the 21 agents sent into Britain in advance of the invasion, 20 were captured or gave themselves up, the last one committing suicide. 8 This was due to Abwehr incompetence, as well as the policy that each new agent was to contact an in-place agent. Fortunately for the British, all the in-place agents were in the employ of MI5. The result was that

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⁵ David Kahn, *Hitler's Spies* (New York: Macmillan Publishing Co., Inc., 1978), 225.

⁶ Michael Howard, Strategic Deception in the Second World War (Originally titled Strategic Deception, Volume 5, British Intelligence in the Second World War) (New York: W. W. Norton & Co., 1995), 3-4.

⁷ Tomas Harris, *GARBO*: *The Spy Who Saved D-Day* (Richmond, Surrey, England: Public Record Office, 2000), 6.

⁸ F. H. Hinsley, *British Intelligence in the Second World War, Abridged Version* (Cambridge: Cambridge University Press, 1993), 118.

...the spies that had been established in Britain had, without exception, fallen under the control of the Security Services, MI5. Every agent that had been infiltrated into the country had been picked up and, in the counter-intelligence argot, 'turned'.⁹

While these double agents were run as a course of normal business, soon the number of agents and the type of information they handled required a separate agency to control their activities. A sub-committee was formed, known as the W Committee, to "keep agents sufficiently fed with accurate information so as not to lose the confidence of the enemy" and more significantly, to "[maneuver] these agents...to mislead the enemy on a big scale at the appropriate time." 10 Actual running of the agents was under the auspices of the B1A section of MI5, though a separate organization was needed to provide day-to-day oversight and coordinate low-grade intelligence information. This group became the Twenty (XX) Committee, or the Double Cross Committee. By using both out-of-date and fabricated information, MI5 was able to increase the Abwehr's confidence in the agents. The XX Committee's role was to act as an intermediary between the B1A, MI5, the military services' intelligence agencies, and the Secret Intelligence Service (MI6).¹¹ Through the XX Committee, the services could determine what information could be passed to the Abwehr to build confidence in the agents while not compromising real operations. It was also this group that gave the "running" of double agents their informal name: the "Double Cross System."

The Double Cross System

The breadth and reach of the entire Double Cross System was a truly remarkable achievement in the history of military intelligence. At first, there was much discussion of whether the double

⁹ Roger Hesketh, *Fortitude, the D-Day Deception Plan* (Woodstock, New York: The Overlook Press, 2000), xi.

¹⁰ Harris, 6.

¹¹ Howard, 8.

agents should be used for counter-intelligence or for deception. Through careful coordination with the XX Committee, MI5 was able to do both by carefully screening the information fed to the Abwehr. The result was a system of "controlled leakage" of information, which MI5 referred to as "Special Means." The Germans inadvertently helped the British efforts by providing their "agents" with questionnaires. These questionnaires provided MI5 and MI6 with valuable information on both the preparations for future German operations as well as what intelligence the Abwehr already had. By forcing the agents to rely on radio transmitters, (after the restrictions on correspondence to and from the British Isles) the questionnaires and their lengthy responses aided the intercept services in decrypting the German codes. As an almost comical sidelight, the payments the Abwehr made to their agents often went to fund the British intelligence efforts. But the most valuable contribution, by far, was the ability to mislead the OKW as to the British intentions.

Short-range deception plans would have been helpful in the immediate, tactical arena. But

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¹² Harris, 6.

¹³ Hesketh, xv.

¹⁴ Howard, 9.

the British recognized that the agents and the Double Cross System could most effectively be used in a long-term, strategic deception. By identifying the most trusted German "agents," cultivating them by building their credibility, and through using good information, MI5 could change the course of the war. By building up the agents through years of careful fostering, the agents could "be held in readiness and at the disposal of the Service Departments for a large-scale deception which could at the critical moment be of paramount operational importance." These agents were at the heart of the deception operations, and their story is one of the most amazing aspects of the entire operation.

Agents

As mentioned earlier, the Abwehr and FHW attempted to infiltrate agents into Britain as early as the early 1930's. The first double agent, Arthur Owens, offered his services to MI5 in 1938 as war with Germany began to seem more certain. Owens became the double agent, SNOW, and though his loyalties were questioned at times, he was valuable in the sense that he essentially laid the groundwork for future agents. The Abwehr began to send follow-up agents to SNOW for assistance, which he promptly turned over to MI5. The network of British-controlled double agents began to grow, and as the anticipated invasion of Britain loomed, the Abwehr stepped up its efforts to infiltrate agents into the British Isles. However, as each agent was infiltrated, he either surrendered or was captured, and subsequently turned into a double agent. By August 1940, every German agent in England was a British-controlled double agent, and "they passed on only the information—real or faked – that the British wanted them to." As remarkable as this all seems, the most incredible part of the story began with a "walk-in" agent, one who was not

¹⁵ Ibid

¹⁶ Kahn, 367.

recruited, but who offered his services based on his own ideology. This agent was Juan Pujol, who would become GARBO.

GARBO and the GARBO Network

Juan Pujol was a Catalonian Spaniard who was forced to join the Republican Army during the Spanish Civil War, though he did so with the intent of deserting to the Nationalists at the first opportunity.¹⁸ Pujol was "equally hostile to Nazism and communism" and "seemed to have had ambitions to become a professional spy for the British in either Germany or Italy."¹⁹ Inadvertently, his joining the Nationalists gave him valuable credibility when he decided to offer his services to the Germans, who were supporting the Nationalists.

Pujol then went to the German Embassy in Madrid and offered his services to spy on the British in Lisbon. After much pressing, he was able to get the Germans to agree, provided he could get to England and spy on the British directly. Since Pujol did not have the means to get to England, he began to fabricate reports from Lisbon instead, using his own imagination, a map of the United Kingdom, a Blue Guide tour book of England, a Portuguese book on the British Royal Navy, and an Anglo-French book of military terms.²⁰ With these books, Pujol was able to concoct a nine-month string of 39 fictional reports for the Abwehr, which they fully trusted.²¹ Once Pujol started his reports "from England," the British intercept services began seeing Abwehr Enigma-coded traffic transmitted from Madrid to Berlin. As time went on, however, the British could see that the Abwehr was putting more and more faith in the reports from this agent

¹⁷ Kahn, 367.

¹⁸ Harris, 9.

Anthony Cave Brown, *Bodyguard of Lies* (New York: Harper/Collins Publishers, Inc., 1975),

²⁰ Harris, 56.

²¹ Howard, 19.

"in England." In fact, the source was so trusted that further Ultra intercepts "disclosed that U-Boat Command was preparing to intercept a large Liverpool-Malta convoy," one that didn't exist except in Pujol's mind and message. During this time, Pujol made numerous overtures to the British in Lisbon, who rebuffed him at every turn. Finally, using his wife to contact an American attaché who introduced him to an MI6 agent, Pujol was finally able to have his story heard. Pujol showed his MI6 contact Message 39, which detailed the fictitious convoy heading from Liverpool to Malta. MI5 finally realized the truth: Pujol had the complete trust of his Abwehr controllers and of Abwehr itself, and he was willing to work for MI5. Thus began the career of Pujol, who became the famous GARBO.

Once in London, GARBO's network expanded to include 27 entirely fictitious sub-agents (See Appendix I). This allowed the XX Committee tremendous flexibility in the use of agents, as well as providing protection for GARBO. For example, if a sub-agent became a liability, the XX Committee simply gave the agent a "terminal illness" or allowed MI5 to "discover and arrest" the sub-agent.²³ The sub-agents also offered protection to GARBO, since if information that he passed was subsequently found to be false by the Germans, he could attribute the bad information to a sub-agent and disavow him, protecting the overall network. Overall, GARBO's work was considered so reliable and valuable to the German war effort that Hitler himself authorized awarding GARBO the Iron Cross, an exceedingly rare honor for a civilian.²⁴ While this network was remarkable in its robustness and seeming validity, it does not lessen the role of the other Double Cross Agents.

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²² Lewin, 305.

²³ Harris 299

²⁴ Ibid., 261.

BRUTUS

Agent BRUTUS (Roman Garby-Czerniawski) was a Polish Air Force officer who was initially captured by the Germans after the fall of Poland. He was subsequently recruited by Abwehr to infiltrate England as a spy. Using the French Resistance network, he was smuggled to England in 1942, where he promptly offered his services to MI5.²⁵ While working at the Polish Headquarters in England, he was validated as a double agent in March 1944, he was allowed to work with the FORTITUDE team and its use of deception to fool the Abwehr.²⁶

BRUTUS went to work immediately as a liaison officer between the Polish and Royal Air Forces.²⁷ Through his reports, he was able to help convince the Germans that the Allied troop strength was not near the levels required for the coming invasions. BRUTUS was particularly valuable to the XX Committee by virtue of his nationality: he was ostensibly assigned to the lowlands of Scotland, where he could view the preparations of the Free Polish units training in the north.²⁸ Here, he made good use of his imaginary radio operator (named CHOPIN) to pass false reports to Abwehr.²⁹ BRUTUS later became a liaison officer with the imaginary First US Army Group (FUSAG) Headquarters in Southeast England, where he was able to report firsthand on the troop buildup and movements of the FUSAG forces.³⁰

Both the Abwehr and FHW held GARBO and BRUTUS in remarkably high regard. By monitoring the Abwehr network, it was evident that both GARBO and BRUTUS had extremely good reputations within the German intelligence networks, and were trusted to always forward

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²⁵ Howard, 77.

Hesketh, 53.

²⁷ Brown, 485.

²⁸ Howard, 115

²⁹ Hesketh, 53. Howard, 121.

accurate intelligence.³¹ In the post-war analysis, the British intelligence agencies felt that it "was almost entirely due to the work of GARBO and BRUTUS and their associates that [OKW] built up a picture of [the invasion armies] and its intentions…"³² These "associates" were other agents in the Double Cross system; many of these were turned Abwehr agents, while others were walk-in agents like GARBO. These agents were also valuable, though they contributed far less to the deception efforts, mostly because their German controllers trusted them less.

German Intelligence Systems

While the German Army was the most feared offensive weapon in the world in the early 1940's, its intelligence service was lacking in many ways. In particular, it was well behind the British in the infiltration and use of human agents, especially in the west. While it started inserting agents even before the outbreak of the war, all of them were uncovered. Using these as a "seed" for future intelligence coups, MI5 was able to completely roll up the German networks. By August 1940,

MI5 had then made use of a pre-war contact [Agent SNOW] to introduce two new double agents to the Abwehr, and the [MI6]'s Radio Security Service had begun to intercept and decrypt radio transmissions associated with the Abwehr's hasty preparations for dispatching spies in advance of a German invasion. Assisted by these sources, *and by the ineptitude of the Abwehr*, MI5 had totally defeated the Abwehr's first offensive (emphasis added).³³

A major problem with the German intelligence apparatus was its "extensive and varied" nature.³⁴ While OKW itself had an independent intelligence branch, the Abwehr, each of the subordinate armed services had its own branch. The Army High Command, for example, had its FHW.

³¹ Kahn, 355.

³² Howard, 117.

³³ Hinsley, 118.

³⁴ Kahn, 42.

Additionally, Heinrich Himmler's *Schutzstaffel* had its own independent intelligence service, the RSHA, which ultimately absorbed the Abwehr due to Hitler's justifiable loss of confidence in the latter.³⁵ Since there was no central intelligence clearinghouse, the information gathered was often duplicated and contradictory. This lack of unity of effort, in addition to the Abwehr shakeup following defections in the spring of 1944 (when intelligence about the pending Allied invasion was most critical) was a typical and fatal flaw in the German war machine.

Much of this seeming ineptitude was simply due to arrogance on the part of the Germans, as well as a general disdain for the utility of military intelligence. Another contributing factor was that the Germans did not think that they had much to learn from extensive intelligence gathering, since they had "trusted" agents in place. According to German accounts, "no special intelligence effort was needed to establish that an invasion of the European continent was planned by the allies – by 1943 at the latest this was an open secret." Therefore, the Abwehr did not attempt to infiltrate more agents into England after 1942.

The Luftwaffe tried to fill in some gaps in intelligence with aerial reconnaissance, but these efforts became increasingly sporadic as time went on and the Allies enjoyed air superiority.³⁷ As we shall see later, the tidbits of information that the Luftwaffe was able to glean were essentially the pieces the XX Committee wanted the Germans to see. Furthermore, the aerial reconnaissance did little to confirm the time and place of the invasion.³⁸ With so few options for

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³⁵ Ibid., 6.

Andreas L. Nielsen, The Collection and Evaluation of Intelligence for the German Air Force High Command, (Maxwell Air Force Base, AL: United States Air Force Historical Research Agency Document Number K113.107-171 [1955]), 201.

³⁷ Hesketh, 4.

³⁸ Nielsen, 202.

gathering intelligence, the Abwehr had to rely almost exclusively on the agents' reports and on radio intercepts.

By using the intercepted radio traffic among the various Allied troop formations, the OKW was able to confidently build a picture of the coming invasion forces. The entire order of battle of army formations was known, as well as the locations of each of the groups. Unfortunately for the OKW, these radio intercepts were planted as part of FORTITUDE's wireless deception plan. The final, and potentially most damaging weakness to the Abwehr and the German war effort was its total belief that its codes were unbreakable. Many books have been written on Enigma and the ability of the Allies to read the German codes; it is not the intent of this paper to reiterate those works. However, one aspect of Ultra needs to be examined to complete the discussion of the closed loop deception system.

The Role of ENIGMA

We have seen how MI5 expertly merged the use of double agents, wireless deception, and physical deception. With these powerful tools, MI5 was able to form the forward path of the closed loop deception system. With strict control of virtually all of the information out of the British Isles, MI5, and its XX Committee was able to present the Abwehr, FHW, RSHA, and OKW with whatever picture it wanted. The beautifully intricate plan allowed each branch of deception to corroborate the others, each working to verify the "facts" presented. But what made the deception plan so lethal to the German war effort was its use of the deception tools in a closed loop system. It did this by creating a feedback loop using Ultra intercepts of German radio transmissions. These transmissions were encoded by the Enigma coding machine, which the Germans thought was unbreakable. By reading the German messages, the XX Committee had feedback as to the German assessments of the intelligence passed to them from their

"sources." Thus, the XX Committee could match the intelligence to what the Germans expected to hear. The key to this feedback was the German's reliance on the Enigma machine.

The Enigma machine was developed in 1923 by a German Engineer, Dr. Arthur Scherbius, based on the designs for a "secret writing machine" patented by Hugo Koch in 1919.³⁹ Scherbius called his machine "Enigma" and was intended to prevent industrial espionage; but soon the German military services saw the usefulness of the machine in encrypting messages. Fortunately for the Allies, Polish mathematicians had broken the coding scheme in 1932 by applying various mathematical applications to cryptology.⁴⁰ At the outbreak of the war, the Poles passed their Enigma knowledge to the British who were able to put it to good use.⁴¹

Enigma was a remarkably simple machine that was able to encode using a vastly complex method. Through electro-mechanical devices, letters input to the machine were transposed to other letters. The huge number of possible near-random permutations made the encrypted messages virtually unbreakable. This belief gave the Germans great confidence in the security of their communications, and they happily transmitted encoded messages throughout the war, confident that the messages were secure.

This aided MI5 and the XX Committee by closing the loop on their deception plans and the Special Means. The XX Committee was able to feed deception information to their agents, who would, in turn, pass the information to the Abwehr. Once the Abwehr received the information, it would make its assessment as to the viability of the information. The Abwehr would pass on its assessment via radio to Berlin, where it would be further disseminated to the field units,

³⁹ Lewin, 25.

Wladuslaw Kozaczuk, Enigma, How the German Machine Cipher Was Broken, and How It Was Read by the Allies in World War Two (Frederick, MD: University Publications of America, 1984), 272.

again, by radio. Of course, the British, who could decode the messages as fast as the Germans, intercepted these radio messages. This feedback was also invaluable to the Allied deception effort in keeping their double agents believable: if the Germans were skeptical about some of the agents' reports, the XX Committee would know via Enigma. The agents, to preserve their believability in the Abwehr's eyes, could later disavow these reports. The reports that the Abwehr believed could then be further pursued with even more effect. This closed loop system proved to be remarkably effective, and the British used it extensively in the Normandy invasion's deception plan known as Operation FORTITUDE, a sub-plan of BODYGUARD.

Plan BODYGUARD

The deception advisor to the British Chiefs of Staff (London Controlling Officer) was tasked in late 1943 to develop a deception plan to cover the planned Allied invasion of France. This deception plan, known as BODYGUARD, was charged with "induc[ing] the enemy to make faulty strategic dispositions in relation to operations by the United Nations against Germany." This plan provided a framework with which the overall deception plan was to revolve. Specifically, Plan BODYGUARD had both strategic and tactical dimensions. Strategically, BODYGUARD's intent was to

...persuade the enemy to dispose his forces in areas where they can cause the least interference with Operations *Overlord* [the Normandy invasion] and *Anvil* [the invasion of Southern France] and with operations on the Russian front, and tactical[ly], to deceive the enemy as to the strength, timing and objective of *Overlord* and *Anvil*.⁴³

Significantly, it charged the Supreme Commanders (North-Western European and Mediterranean) in each theater with coordinating the deception plans among themselves as well

⁴¹ Lewin, 48.

⁴² Hesketh, 17.

as with the actual operations going on within their theater.⁴⁴ Within this broad ranging plan, each of the invasions had its own sub-plan.

Operation ANVIL had its own separate cover plan, Operation FERDINAND. This operation was intended to lead the Germans to believe that the Allies were too intimidated by the German forces in place. Therefore, the Allies had postponed the invasion of Southern France to a later date, and they would attempt landings in the Balkans.⁴⁵ This plan paled in comparison to the much more ambitious plan to cover the Normandy landing, Operation FORTITUDE, a plan so complex and far-reaching that it was broken into two distinct parts: FORTITUDE NORTH and FORTITUDE SOUTH. Each part had two phases; Phase I was prior to D-Day, and Phase II covered the post D-Day deception.

FORTITUDE NORTH

Plan BODYGUARD's intent was to force the Germans to disperse their forces as much as possible. By tying down as many German divisions as possible, the Allies could have a better chance of gaining a toehold in Northern France. With this in mind, the London Controlling Section implemented Operation FORTITUDE NORTH. This deception plan was focused on giving the impression that the Allies were intending to land significant forces in Norway. 46

Agent's Roles

Both GARBO (through his network) and BRUTUS played extensive roles in the FORTITUDE NORTH deception. GARBO had five of his 27 sub-agents "stationed" throughout Scotland and Northern Ireland to report on the movements of the notional 4th Army, which was the assault

⁴³ Howard, 107. ⁴⁴ Hesketh, 17.

force for the invasion of Norway.⁴⁷ BRUTUS was in the north, ostensibly working for the Polish formations attached to the 4th Army. This force was intended as a diversionary force that would immediately precede the main attack, the assault on the Pas de Calais (the objective of the FORTITUDE SOUTH deception).⁴⁸

GARBO's reports were well received by the Abwehr, who were able to build a complete order of battle for the impending invasion. By relying on the Ultra intelligence from intercepted Enigmacoded messages, the XX Committee was able to pass to the Abwehr what they expected to hear. Through Ultra sources, the XX Committee determined that the Germans believed that there was a full British Army in the north, augmented by a corps-sized unit of United States troops. Obligingly, the GARBO network in reported that the British 4th Army was headquartered in Edinburgh.⁴⁹ The network also reported that the 52nd Lowland Division had been training in Scotland with mountaineering equipment, such as crampons, and therefore could be assumed to be training for an attack on Norway.⁵⁰ BRUTUS as well as other lesser agents verified this intelligence as "true." To this formation, the agents added the American formations that formed the XV Corps, which was bivouacked in Northern Ireland. The agents befriended the "looselipped" American soldiers, who were always willing to boast about the United States' role in winning the war. These talkative Americans also alluded to an infantry division and three Ranger battalions in Iceland, also preparing for the invasion. Two Double Cross agents in Iceland (COBWEB and BEETLE) verified this information.⁵¹

⁴⁶ Brown, 460.

⁴⁷ Hesketh, 63.

⁴⁸ Kahn, 501-502.

⁴⁹ Howard, 116.

⁵⁰ Harris, 140.

⁵¹ Howard, 115.

BRUTUS continued reporting on the troop formations and locations, most of them notional. In addition to corroborating GARBO's accounts of the fictitious 4th Army and the 52nd Lowland Division (which did exist), he identified the fictional II Corps at Stirling, VII Corps at Dundee, and the 58 Division at Stirling.⁵² These units were unambiguously identified by their distinctive unit badges, which BRUTUS described in detail in his reports.⁵³ Through all of these reports, the Abwehr was able to build what they considered a reliable Order of Battle of the Allied Forces assembling in Scotland, conforming closely to the XX Committee's story (Appendix II).

That the Abwehr, FHW, and ultimately OKW bought in to the deception is without question: these reports were quickly followed up by anxious questionnaires, asking "Is there anything pointing to intended landings in the German Bight, Denmark, and South Sweden" which apparently "obsessed Hitler." ⁵⁴ By using a number of Double Cross agents throughout Scotland, Northern Ireland, and Iceland, the agents were able to pass more information on Allied troop concentrations. But more importantly, by confirming the intelligence of one agent by correlating it with reports from other agents and radio intercepts, MI5 and the XX Committee were in complete control of the Abwehr's picture of the invasion preparation.

Wireless Deception

The second leg of the deception master plan was the intentional leaking of intelligence through radio communications. These were particularly valuable in the northern part of England since the opportunities for reconnaissance flights were very limited. Since this was a real and realized limitation, the Germans came to rely almost exclusively on the few agents' reports, using extensive radio intercepts to fill in the gaps. In fact, "radio intercepts provided important

⁵² Ibid., 116. ⁵³ Hesketh, 74.

information, particularly concerning the organizational structure, strength, and disposition of forces."⁵⁵ The British had a great respect for the Germans' wireless intelligence activity, stating that they could "have [British units'] headquarters pinpointed with a maximum error of five miles...[within] a few hours..."⁵⁶

The actual execution of the wireless deception program was truly brilliant. All units in England had their own radio units and were allowed to transmit their encoded messages concerning routine matters such as training and manning issues. This included two naval wireless deception units located in the Clyde in Scotland (Force V and Force W) to simulate the naval forces required to support the invasion of Norway.⁵⁷ The Germans intercepted most of these messages and readily decoded them since "radio operators and cryptographers were well acquainted with their tasks and were able to detect the slightest change in the radio communications operations."58 In reality, the XX Committee strictly controlled each unit's communications. Some units were allowed to broadcast normal message traffic until they were to move to their embarkation point in the south. Once they were ready to move, the units were placed under radio silence orders, and small "wireless deception" units were put in place to continue to broadcast message for the now-departed units.⁵⁹ In other cases, entirely fictional units were developed to fill in the gaps or to artificially increase the number of units in England. Of the units in the 4th Army in Scotland, only the XV Corps (consisting of the 5th and 8th US Infantry Division, and the British 52nd Lowland and 113th Independent Infantry Division, as well as the

⁵⁴ Howard, 116.

⁵⁵ Nielsen, 203.

⁵⁶ Brown, 464.

⁵⁷ Hesketh, 68.

⁵⁸ Nielsen, 202.

⁵⁹ Hesketh, 150.

Norwegian Brigade) really existed, and were moved south just prior to D-Day, while radio traffic indicated that they were still in Scotland. However, other portions of the 4th Army, including the Headquarters itself, the 7th British Corps, the 55th US Infantry Division, as well as three US Ranger Battalions in Iceland, were all non-existent.⁶⁰

However, there is evidence that the Germans ignored the FORTITUDE NORTH wireless deception plan. During the build-up phase for OVERLORD, the wireless reconnaissance units of the German 20th Army in Norway were forward deployed to Finland, working against the Russians.⁶¹ Therefore, some of the intended targets of the wireless deception were not listening. While the deception plan alone may not have kept the German forces in Norway, the fact of the matter is that these forces were kept out of France and away from the invasion; in that light, FORTITUDE NORTH can be considered at least a partial success.

In total, by January 1944, Abwehr had estimated 55 divisions in England and by May, the numbers had been upped to 79 divisions. In reality, the total numbers were 37 and 52, respectively.⁶² This almost complete ability to control the Germans' picture of the Allied preparations was also aided by the physical deception efforts.

Physical Deception

The third part of the deception plan, physical deception, was not as valuable as the other methods in the FORTITUDE NORTH plan. Since so many resources were tied up in the real preparations, along with the fact that the Germans had limited reconnaissance opportunities, "it was agreed that elaborate visual misdirection would not be necessary."

⁶⁰ Ibid., 152.

⁶¹ Kahn, 502.

⁶² Howard, 115.

⁶³ Hesketh, 63.

The almost impenetrable fighter screen above England complicated air reconnaissance mission to such a degree that results were often obtained only accidentally. Thus, no physical information could be gathered as to possible secondary landings, for instance in Norway, Denmark, or perhaps along the German North Sea Coast.⁶⁴

This being said, MI5 did execute some physical deception programs for FORTITUDE NORTH, and the efforts were stepped up as the invasion neared. Specifically, the navy backed Force V and Force W wireless deception plan by moving all surplus ships to the Firth of Forth to provide a build up of shipping necessary to support the invasion. In addition to this, the Royal Air Force began to simulate the movement of medium bombers with supporting fighters to Scotland through decoys and wireless deception. All of these actions led OKW to believe that they had a clear grasp of the Allied intentions and order of battle. However, the actions in Scotland in support of FORTITUDE NORTH paled in magnitude and effectiveness to the actions in FORTITUDE SOUTH.

FORTITUDE SOUTH

Like FORTITUDE NORTH, the plan for FORTITUDE SOUTH used all three means (agents, wireless deception, and physical deception) to achieve its goal. However, since it was recognized that the Germans had a valid suspicion that the main Allied assault would be in northern France, the plan for FORTITUDE SOUTH was more complex. The emphasis for FORTITUDE SOUTH was that the main invasion was to occur in the Pas de Calais, and the Normandy amphibious landings (the naval portion of OVERLORD codenamed NEPTUNE) were merely a diversion to draw German troops and reserves away from the Pas de Calais. The

⁶⁴ Nielsen, 202.

⁶⁵ Hesketh, 70.

"story" for FORTITUDE SOUTH as published in the cover plan, was divided into two phases: Phase I where "the main Allied assault is to be made against the Pas de Calais area" and Phase II where the Pas de Calais assault would take place once German forces were committed to Normandy.⁶⁷

Phase I of the deception plan was written so that the Germans would think that the main assault on the Pas de Calais would occur at NEPTUNE D+45, or 45 days after the Normandy landings.⁶⁸ This portion of the plan was executed prior to D-Day via agents, wireless intercepts, and physical deception. It was crucial to make the Germans think that the Normandy landings were a diversion and to keep them thinking that for as long as possible. This was a critical point since the plan's entire premise revolved around keeping the German defenders pinned down in reserve in the Pas de Calais area. This would keep these troops from deploying to the Normandy areas during the critical first few days of the landings.

Phase II of the plan was executed after the Normandy landings. This phase was to continue the deception that the assault was itself a diversion prior to the main assault. The plan stated, "once the German reserves had been committed to the NEPTUNE D-Day, that the main threat to the Pas de Calais is still to be carried out."

To support these plans, the First United States Army Group (FUSAG) was created in south and southeast England.⁷⁰ To command the FUSAG, the Allies had at their disposal Lieutenant General George Patton, who had rendered himself "unemployable" after he slapped two shell-

⁶⁶ Howard, 116

⁶⁷ Bertram Ramsay, Bernard L. Montgomery, and Trafford Leigh-Mallory, *Operation OVERLORD, Cover and Diversionary Plans* (Maxwell Air Force Base, AL: United States Air Force Historical Research Agency Document Number 505.61-62, 1944), 1.

⁶⁸ Howard, 111.

⁶⁹ Ramsey, 1.

shocked soldiers.⁷¹ This played well to the Germans, who considered Patton the Allies' most capable and daring commander. As with FORTITUDE NORTH, the Double Cross agents did their share to reinforce the expectations laid out in the deception plan.

Agent's Roles

As the invasion preparations progressed, the best, most reliable means to get the deception information to the Abwehr was through the Double Cross agents in southern England.⁷² In the estimation of the Abwehr, GARBO and his network were the most important sources of information on the Allies' invasion preparation.⁷³ The GARBO network was well represented in the southern part of England. Of the 27 network agents, all were at one time or other located in and reported from the south and southeast of England.

GARBO's service was considered invaluable to the Abwehr's attempts to gain details of the impending allied invasion. At various times, his Abwehr controllers in Madrid sent questionnaires soliciting details of the troop build-ups, and specifically, any information on the timing and location of the invasion. Just after the start of BODYGUARD, the Abwehr sent a questionnaire to GARBO requesting the organizational structure, readiness, and location of all army groups in England, as well as any information as to the timing and location of the landings.⁷⁴ To this, GARBO was able to add his own interpretations of the raw intelligence material, filling in the blanks, and preventing the Abwehr and FHW from drawing their own conclusions. This had the added benefit that MI5 and the XX Committee were able to control everything the Abwehr and FHW saw and thought about the pending invasion.

⁷⁰ Ibid.

⁷¹ Howard, 120.

⁷² Hesketh, 188.

⁷³ Howard, 121.

Throughout the buildup period, GARBO, his sub-agents, and BRUTUS were making the rounds of southern and southeastern England in keeping with their cover jobs. In doing so, they were able to report extensively on the buildup of the FUSAG and the units therein. For example, in late April 1944 GARBO reported the movement of both the US 6th Armored and 28th Divisions to the Dover area, when in fact they were still bivouacked in the Swansea (in Wales) and Wiltshire (southwest England) respectively. This movement was "independently corroborated" by BRUTUS a few days later, so the report was "confirmed" as true in the Abwehr's thinking. The entire Allied order of battle was "pinpointed" in this manner, leading the OKW to have what they considered an accurate picture of the Allied formations. In reality, most of the real Allied units were in other locations, and some of the units the OKW were tracking were non-existent. One of the key moments for GARBO came on the eve of D-Day. The XX Committee realized that given the size of the Normandy invasion, it would be impossible to launch the assault without some hints being seen by the agents. To preserve the agents' credibility in the eyes of the Abwehr and FHW, the XX Committee convinced the Supreme Commander to allow a leak that the invasion was imminent just hours prior to the assault. This was extremely well orchestrated in that the leak had to occur early enough to provide credibility, but too late to allow troop deployments by the Germans. 76 To accomplish this, GARBO sent sub-agent 7(6) (purportedly in Glasgow) to run down a rumor of the invasion, and that GARBO was expecting a call at 0300 hours British Standard Time. He advised his controllers to stand by for an extremely urgent message to be sent at that time.⁷⁷ The timing was such that by the time the message was

⁷⁴ Harris, 178.

⁷⁵ Hesketh, 176-177.

⁷⁶ Kahn. 513.

⁷⁷ Harris, 198.

received, decoded, recoded through Enigma and forwarded to Berlin, the first wave of troops would be assaulting the beach. Due to the typical Abwehr ineptitude, the message was received in Madrid, but was not decoded and forwarded until 0608 hours -- after the start of the pre-invasion bombardment. However, the effect was unchanged: GARBO had forewarned the Germans, if only by a few hours, and his credibility remained intact. Through all of this, the wireless deception plan was also in full swing.

Wireless Deception

As with FORTITUDE NORTH, wireless deception played a large part of the deception plan. The plan went into effect on 24 April 1944 when the first FUSAG messages went out.⁷⁹ From that date, the small team was able to duplicate the message traffic of an army group of over 150,000 men.⁸⁰ Within the FUSAG were the 9th US Army and the imaginary 14th US Army with its XXXIII and XXXVII Corps, along with the 4th British Army, with its 2nd and 7th British Corps.⁸¹ By late 1943, the FHW assessed 34 divisions in southern England; of these, 11 were imaginary.⁸² These imaginary formations compounded the defenders problems by adding mass to the Allied Pas de Calais threat. These German estimates were further backed with physical deception.

Physical Deception

FORTITUDE SOUTH had a more pressing need for physical deception than did FORTITUDE NORTH. While Luftwaffe aerial reconnaissance was minimal, there was still a risk. With that

79 Ramsay, 2.

⁷⁸ Howard, 185.

⁸⁰ Howard, 121.

⁸¹ Hesketh, 244.

⁸² Kahn, 493.

in mind, the plan called for dummy landing craft to be installed in the bays and estuaries of southeastern England should the Germans choose to verify the information obtained by wireless intercept and agents.⁸³ To further distract the Germans, the plan called for deceptive preinvasion bombings in the Pas de Calais area with fighter groups assembled in the southeast, within easy reach of both the Pas de Calais and Normandy.⁸⁴ The plan also included night lighting the dummy landing craft and building dummy radio antennae in the Dover area. 85 Since the BODYGUARD plan was to deceive the Germans as to both the location and date of the landings, an ingenious plan was used to fool the Germans into thinking the invasion was many weeks off. At the very end of May, an actor who resembled Field Marshal Montgomery (then in command of the 21st Army Group, the main assault force for Normandy) was sent on a trip to Gibraltar. Since it was known that the Spanish were monitoring the airfield and that they were sympathetic to the Germans, the word would get back that Montgomery was away from England. From that, the OKW could infer that the invasion was not imminent.⁸⁶ Incredibly, these plans worked extremely well, and the Germans were surprised on the Normandy coast on 6 June 1944.

Post D-Day

After the costly, though successful, D-Day assault, Phase II of the deception plan was implemented. This involved keeping the German forces pinned down as long as possible and preventing their movement to reinforce the troops at Normandy. In pursuit of this objective, the agents were the primary means to get the Germans to delay movement.

⁸³ Ramsay, 2.

⁸⁴ Hesketh, 118.

⁸⁵ Ramsay, 3.

⁸⁶ Hesketh, 122.

Agent's Roles

While GARBO was sending his report on the morning of D-Day, BRUTUS was by no means inactive. He was still attached to the FUSAG, and with the activity going on in the south of England, he reported that he was "extremely surprised because our FUSAG remains unmoved" and that it appeared that the FUSAG's actions would be independent of the action in Normandy. By 8 June, BRUTUS was able to report that he assessed that the "dividing line between [Montgomery's] 21st Army Group and the American Army Group [FUSAG]...will roughly be along the Seine," clearly indicating a leaning toward a Pas de Calais assault. Additionally, one of GARBO's notional sub-agents was a Ministry of Information (the British Propaganda Agency), who subsequently informed GARBO that though the invasion was "a further step" the Germans must be kept in the dark regarding other, future, important steps. To further build his credibility, on D+2 (8 Jun) GARBO began to send information on those units already landed and identified by German army units in Normandy, therefore not hurting the Allied cause. On that same day, GARBO sent the single most important message of his deception career.

GARBO's 8 Jun Message

After the beginning of the invasion, GARBO called in his agents in the field and using their combined information, he assessed that the Normandy invasion was a diversion. In a well-timed message designed to halt whatever movements the Germans had started toward Normandy, GARBO sent a message stating

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⁸⁷ Ibid., 199-200.

⁸⁸ Ibid., 200.

⁸⁹ Howard, 186.

After personal consultation with [various agents], I am of the opinion, in view of the strong troop concentrations in SE and E England, that these operations are a diversionary maneuver designed to draw off enemy reserves in order to attack in another place. In view of the continued air attacks on the concentration area mentioned [Pas de Calais and/or Belgium], which is extremely favorable for this, it may very probably take place in the Pas de Calais area...⁹¹

Since GARBO was such a well-respected agent in the Abwehr organization (though by this time, the RSHA had taken over Abwehr), this message received the highest priority handling and its passage through the intelligence channels was reconstructed in post-war analysis of documents the Americans captured. GARBO sent the message just before midnight on 8 Jun. After its delayed receipt by the Madrid Abwehr station, it was forwarded to Berlin and by 10 PM on the 9th, Hitler received a copy of the report from his Chief of Operations, General Alfred Jodl. ⁹² By a stroke of luck, an Abwehr agent in Sweden (JOSEPHINE, a.k.a., Karl Heinz Kraemer, who was not controlled by MI5) had come to the same conclusion through his sources (Swedish military friends in Stockholm). 93 Additionally, an RSHA agent in Stockholm, August Finke, reported that attacks would follow in Norway and Denmark within the next few days. 94 With these independent and corroborating reports, the effect was galvanizing. By 0730 on the 10th, Hitler cancelled his movement orders, stopping the 1st SS Panzer Division.95 While some German reinforcements did make it to Normandy (4 Panzer and Panzer Grenadier divisions⁹⁶), seven other offensive divisions were held back from Normandy to defend the Pas de Calais. 97 While it would be presumptuous to say that this single message changed the outcome of the war,

⁹⁰ Harris, 204.

⁹¹ Hesketh, xxv.

⁹² Lewin, 318.

⁹³ Howard, 188.

⁹⁴ Kahn, 517.

⁹⁵ Ibid., 516.

⁹⁶ Howard, 187.

⁹⁷ Harris, 208.

one thing is sure: the message did plant doubt in the German leaders' minds. This doubt caused the Germans to miss an opportunity to throw more reinforcements against the Allies' landing at Normandy. The direct operational impact of this message cannot be denied, and it can be wholly attributed to the trust that GARBO had gained within the German intelligence circles.

German Assessments and Reactions

To say that the Abwehr and the Germans bought the deception plan would be an understatement. Through the careful mixing of fact and fiction, the XX Committee was able to weave a picture that was both believable and likely. By knowing just what the OKW believed, the XX Committee was able to tailor the deception information presented. The XX Committee, through Double Cross Agents, wireless deception, and physical deception, were able to show the Germans exactly what they expected. Unfortunately for the Germans, this picture was not reality.

The item of most interest to the Abwehr and OKW was the buildup of Allied forces prior to the invasion. Through their destruction of the entire German spy network in England, the British controlled the Germans' human intelligence picture. The near complete control of wireless transmissions in England (radio silence by deployed units while offering faked transmissions to and from imaginary units) gave the Germans a worthless picture of the order of battle. The difficulties in obtaining aerial reconnaissance further complicated the Germans' attempts to use internal sources to verify the agents' stories. The final link, Enigma, was thought to be secure, and the Germans had no idea that the source of their intelligence leaks was their own system.

The overall effect can be seen in the maps presented in Appendix II. The concentration of troops as seen by the OKW matches well with the order of battle presented by FORTITUDE. The huge concentration of troops in southeast England is unmistakable, especially when compared to the

situation as it actually existed. Even the effect of FORTITUDE NORTH is readily apparent with its concentration around Glasgow.

Overall, the OKW thought that the Allies had as many as 90 divisions in England available for invasion support. In fact, only 44 divisions (20 British, 23 US, and one French) were available. With the gross disparity between the number of divisions landed (approximately 150,000 troops, or 8 divisions) and the number of divisions assumed to be available, the OKW and Hitler all assumed that another, bigger landing was imminent. When pressed to allow reinforcements to flow to Normandy, Jodl stated, "Hitler wanted first to see what developed." Hitler later sent the famous order "to have the enemy bridgehead annihilated by the evening of June 6 since there exists the danger of additional sea- and airborne landings for support." From these post-war interrogations and Ultra intercepts of the actions in the field, it is clear that Operation FORTITUDE was a success in keeping the Germans guessing, and because of their confusion and doubt, they were prevented from moving troops to the battle.

As mentioned previously, FORTITUDE SOUTH effectively pinned down seven divisions that could have been moved to reinforce the Normandy defenses after D-Day. To this, we can add the troops that were pinned down in Scandinavia by FORTITUDE NORTH. From post-war interrogations, Jodl indicated that Hitler had always feared an Allied invasion of Scandinavia, and he had left a force of 250,000 troops in Norway. Of those, 150,000 of them were considered

⁹⁸ David Irving, Hitler's War (New York: Avon Books, 1990), 638.

⁹⁹ Howard, 168

¹⁰⁰ William Shirer, The Rise and Fall of the Third Reich (New York: MJF Books, 1959), 1038.

¹⁰¹ Shirer, 1038.

"insurance" against an Allied assault. 102 These troops also could have easily been shifted to France.

Finally, we know from Ultra, messages passed back to the agents, and from post-war debriefing, that the Abwehr, FHW, RSHA and ultimately OKW and Hitler, thought their agents in England were invaluable to their war efforts. In a message from the Japanese Military Attaché to Tokyo, the attaché echoed the OKW's concern that the Normandy invasion was just one of a number of assaults. Significantly, Abwehr made a point of telling GARBO that his work during the beginning of June had helped them tremendously in their preparations and to continue his excellent work. Finally, in post-war meetings between GARBO and his Abwehr controller, GARBO was told that the Abwehr believed in him to the end, and even considered him a "superman" for his extraordinary talents as an agent. From all of this, we can see that the Germans had been had.

Conclusions

Operation FORTITUDE was quite possibly the largest and most successful deception operation during the 20th Century. The sheer scale of the operation was noteworthy, but its most impressive aspect was the coordination of all the elements. By completely rolling up the Abwehr's intelligence network just after the war's outbreak, MI5 was able to virtually eliminate all information flow out of England. Coupled with the seamless integration of the Double Cross agents, wireless deception, and physical deception operations (the feed-forward part of the

¹⁰³ Harris, 210.

¹⁰² Hesketh, 167.

¹⁰⁴ Ibid 204

¹⁰⁵ Ibid., 285.

closed-loop deception) the XX Committee had total control of the Germans' assessments of the Allied force build up for the Normandy invasion. The final component of the plan's success was the ability to directly see the impact of the deception plans through reading the Ultra intercepts. By tailoring the deception information to what the Germans already believed, the deception plan could be modified to maximize the effects. Ultra closed the loop on the deception plan, providing valuable feedback and preventing the XX Committee from pursuing unprofitable avenues and maximizing the deception's effect.

The key event in the BODYGUARD plan was GARBO's 8 Jun message. This one message had a tremendous operational impact on the movement of German Panzer reinforcements in the critical few days after D-Day. It must be noted that this single message was not a stand-alone document. Instead, it was the culmination of a two-year effort to build trust within the Abwehr and the OKW. MI5 and the XX Committee used this two-year span to force the Germans to put all of their intelligence gathering faith in the hands of a few men, easily exploitable wireless intercepts, and wholly haphazard aerial reconnaissance. In doing so, it quite possibly cost Germany the war.

Appendix I

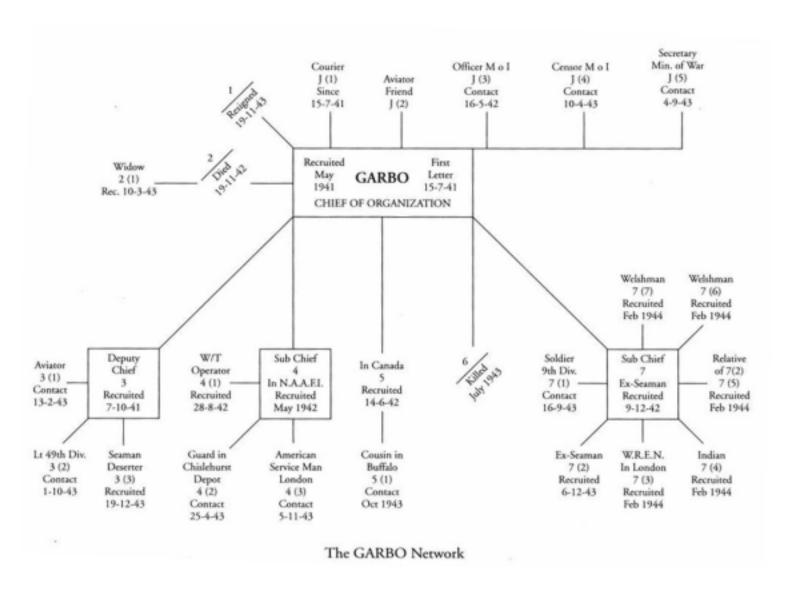


Figure 1. The GARBO Network (Reference: Hesketh, Fortitude, 48)

Appendix II

LOCATION MAP OF THE ALLIED ORDER OF BATTLE.

FORMATION IN THE U. K. ON D - 30 OF OVERLORD AS REPRESENTED BY FORTITUDE. (THE SITUATION AS WE WISHED IT TO APPEAR TO THE ENEMY.)

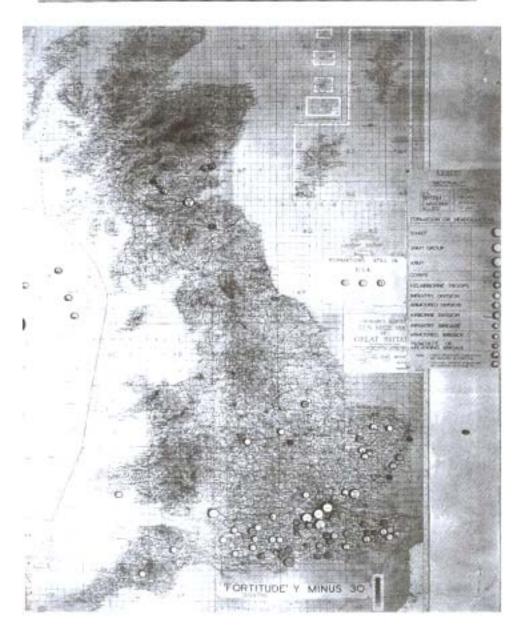


Figure 2. FORTITUDE Order of Battle (D-30) (Reference: Harris, GARBO, 393)

U.K. AT D - 24. (THE GERMAN APPRECIATION WHICH DEMONSTRATES THE INFLUENCE OF FORTITUDE.)

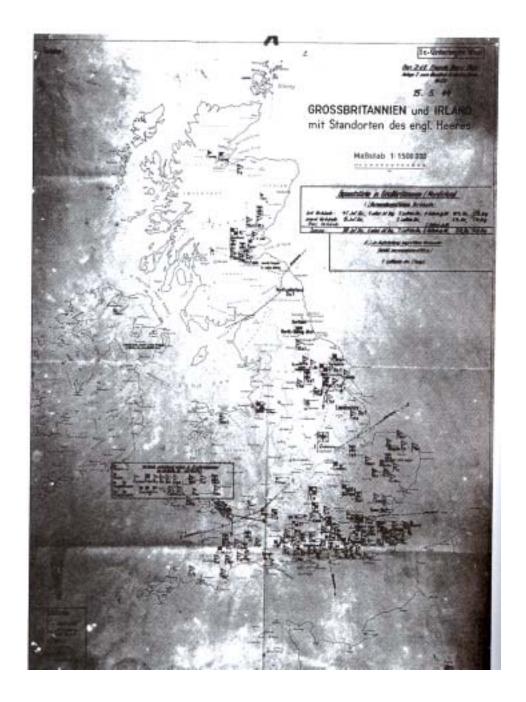


Figure 3. OKW View of Allied Order of Battle, (D-24) (Reference: Harris, GARBO, 394)

LOCATION OF THE TRUE ALLIED ORDER OF BATTLE.

FORMATIONS IN THE U.K. SHOWN IN THEIR REAL LOCATION
AS AT D - 30 OF OVERLORD. (THE REAL SITUATION WHICH

WAS CONCEALED FROM THE ENEMY.)

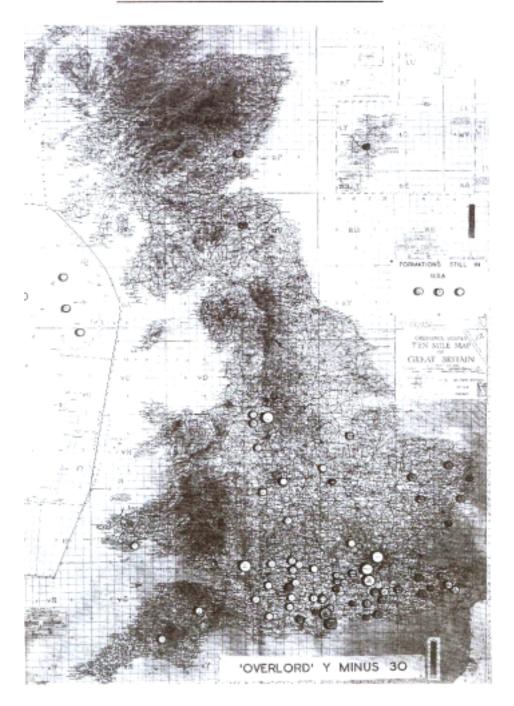


Figure 4. Actual Allied Order of Battle (D-30) (Reference: Harris, GARBO, 395)

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