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# AIR COMMAND AND STAFF COLLEGE AIR UNIVERSITY



# **Second World War Deception Lessons Learned for Today's Joint Planner**

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#### **Foreword**

It is my great pleasure to present another of the Wright Flyer Papers series. In this series, Air Command and Staff College (ACSC) recognizes and publishes the "best of the best" student research projects from the prior academic year. The ACSC research program encourages our students to move beyond the school's core curriculum in their own professional development and in "advancing aerospace power." The series title reflects our desire to perpetuate the pioneering spirit embodied in earlier generations of airmen. Projects selected for publication combine solid research, innovative thought, and lucid presentation in exploring war at the operational level. With this broad perspective, the Wright Flyer Papers engage an eclectic range of doctrinal, technological, organizational, and operational questions. Some of these studies provide new solutions to familiar problems. Others encourage us to leave the familiar behind in pursuing new possibilities. By making these research studies avail able in the Wright Flyer Papers, ACSC hopes to encourage critical examination of the findings and to stimulate further research in these areas.

#### **Abstract**

Second World War history offers the military strategist a cornucopia of lessons learned on how to apply the art of military deception. This paper analyzed six Allied deception operations to identify the fundamental reasons why Allied deception efforts were the most successful in history. The six deception operations reviewed were Barclay, Cockade, and Bodyguard as well as the Soviet deception operations at Stalingrad, Kursk, and White Russia. A critical analysis of these six operations identified seven major factors that made Allied deception efforts extremely effective. These seven factors were that the Allies controlled all key channels of information, had great intelligence "feedback" on their deception operations, had high-level and centralized control over deception planning, practiced sound deception techniques, subordinated deception to strategic and operational objectives, maintained adequate secrecy, and provided sufficient time for deception execution. These factors are relevant for today's operations and should be imbedded within US doctrine.

This study then examined Joint Publication 3-58, Joint Doctrine for Military Deception, and determined it could better incorporate the lessons learned from World War II. Current joint doctrine could be improved by underscoring the contribution that deception provides to surprise, the importance of integrating deception within all three levels of war, and the importance of exploiting an adversary's preexisting beliefs when creating a deception story. Applying these World War II lessons will bolster US deception capabilities.

# Second World War Deception: Lessons Learned for Today's Joint Planner

Military deception is the art of misleading the enemy into doing something, or not doing something, so that his strategic or tactical position will be weakened.

-Charles Cruickshank

The German high command delayed the transfer of the fighter force to France because for a time it believed Normandy was a feint.

—Adolf Galland

#### **Deception Operations in the Second World War**

Military deception has always played a vital role in warfare and will continue to do so as long as mankind has a propen sity to wage war. Sun Tzu alluded to this role more than 2,500 years ago when he stated that all "war is based on deception."1 The importance of deception has surely not diminished over the millennia and, in fact, may be gaining in importance. With declining defense budgets, shrinking force structures, growing costs of high technology, and increasing reluctance to risk human life, today's military strategists and planners should be studying and applying deception with a renewed and heightened vigor. Military deception is a proven force multiplier that can shape the battlefield by providing surprise and security for military operations and forces. Thus, deception enables the joint force commander (JFC) to more quickly achieve mission objectives and to do so at a lower cost in casualties and resources-or in other words, deception allows the JFC to do more with less.

A study of the Second World War offers the military strategist a cornucopia of historical examples and lessons learned for applying the art of military deception. Military deception was successfully planned and executed by the Allies on a worldwide basis in support of decisive military campaigns. <sup>2</sup> The Allies, particularly in the European theater, used deception in every major joint campaign. The three main Allies—Great Britain, United States, and the Soviet Union—all started the war with unfledged deception concepts and ended the war with sophisti-

cated and perfected deception programs. The trials and errors of Allied deception and its maturation are well recorded in history and should be a focal point for any analysis of military deception.

This research project analyzed six large Allied deception operations to identify the fundamental reasons why Allied deception efforts were the most successful in history. This analysis reviewed the British and American Operations Barclay, Cockade, and Bodyguard along with the Soviet deception operations in the battles of Stalingrad, Kursk, and White Russia (the 1944 summer offensive). This review provided the foundation for this research project.

A critical analysis of these six deception operations identified seven major factors that made Allied deception efforts extremely effective. These seven factors were that the Allies controlled all key channels of information, had superior intelligence "feedback" on deception operations, had high-level and centralized control over deception, practiced sound deception techniques, subordinated deception to strategic and operational objectives, maintained adequate secrecy, and provided sufficient time for deception execution. These seven factors made Allied deception successful, and they still have relevance for today's deception planners.

Since these factors are still relevant, this study then reviewed Joint Publication (Pub) 3-58, Joint Doctrine for Military Deception, and found that, although the joint doctrine somewhat reflected the seven factors, it did so insufficiently. This research showed that the joint publication could be improved by underscoring the contribution that deception provides to achieving surprise, the importance of integrating deception within all three levels of war, and the importance of exploiting an adversary's preexisting beliefs when creating a deception story. These three aspects were clearly critical to Allied deception operations and are reflected in the seven factors that are reviewed in detail later in this study.

In short, this research highlighted the important role that deception played in World War II and the emphasis that deception should continue to receive today. Allied deception efforts during the Second World War significantly helped the Allies gain a decisive victory over Nazi Germany and at a reduced cost in casualties. Deception can have the same impact for today's

operations if the lessons of the past are applied. For Winston Churchill's admonition that "in wartime, the truth is so precious that she should always be attended by a bodyguard of lies" is still undeniably true.<sup>3</sup>

All critical analysis should start by reviewing the facts. Therefore, the next section provides a concise review of six major deception operations conducted by the Allies and summarizes their results. This review provides the foundation for analyzing Allied deception efforts.

#### **Allied Deception Operations**

The Allies extensively employed deception against Germany and Italy during the Second World War. The primary goals of Allied deception were to gain surprise for offensive operations and to provide increased security for forces by masking military objectives, planning, preparations, and operations. These deception efforts were most notable in Operations Barclay, Cockade, and Bodyguard as well as in Soviet deception operations at Stalingrad, Kursk, and White Russia.

**Operation Barclay—1943.** Operation Barclay was designed to mask Operation Husky—the Allied invasion of Sicily. Barclay called for sham attacks on southern France and the Balkans, to include Greece and Crete. Barclay was designed to achieve surprise for the Husky invasion force and to cause the Germans to misallocate their resources so they would not strengthen their defenses in Sicily before and after the actual invasion. Further more, Barclay was intended to keep the Italian fleet in the Adriatic Sea close to the Balkans and away from Sicily. To do this, the Allies created a sham army in the eastern Mediterra nean, called the Twelfth Army, which consisted of 12 fictitious divisions.<sup>4</sup> This deception exploited Hitler's preexisting fears, for he often suspected the Allies would invade Europe through the Balkans.<sup>5</sup> The Allies spread this deception story through the use of double agents, false communications, dummy encampments, recruiting of Greek interpreters, and collection of Greek and French maps and currencies. 6

**Operation Mincemeat.** Operation Mincemeat was carried out in conjunction with Barclay. Mincemeat involved the planting of a dead body off the coast of Spain. The corpse appeared to be that of a courier who apparently had fallen from an Allied ship and drowned. More importantly, a briefcase, which was

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attached to the body, contained documents detailing Allied plans to invade Europe through Greece. Interestingly, and no doubt deliberately, the fake plan to invade Greece was also called Husky. After finding the body, the Spanish authorities forwarded copies of the "secret" documents to the Germans. According to Ultra, which was intelligence gained from the deciphering of German Enigma radio communications, Hitler and other senior German leaders believed the story and made preparations to defend Greece. Fremde Heere West (FHW), the German intelligence department that focused on western threats, called the apparent intelligence coup "absolutely convincing." Sir Michael Howard, the renowned British historian, claimed that Mincemeat was "perhaps the most successful deception operation in the war."

**Results of Barclay and Mincemeat.** Operations Barclay and, its supporting plan, Mincemeat were very successful. First, the Allies gained total surprise against both the Germans and the Italians when they invaded Sicily. Second, the Germans misallocated their defenses by bolstering their ground forces in the Balkans from eight to 18 divisions-valuable assets that could have been better used in Sicily and Italy. Third, because of deception efforts, the Oberkommando der Wehrmacht (OKW), the German armed forces high command, had overestimated by 100 percent the number of Allied divisions in the eastern Mediterranean. This inaccurate order of battle lent credence to the German assessment that the Allies were going to invade through the Balkans. Of note, the OKW believed this exaggerated order of battle through the remainder of the war, simplifying future Allied deception efforts in the Mediterranean.8

**Operation Cockade**—**1943.** Operation Cockade was a series of deception operations designed to alleviate German pressure on Allied operations in Sicily and on the Soviets on the eastern front by feinting various attacks into western Europe. Additionally, the Allies hoped to use Cockade to bait the Luftwaffe into a massive air battle with the Metropolitan Royal Air Force and US Eighth Air Force that would enable the Allies to gain air superiority over western Europe. Cockade involved three subordinate deception operations: Starkey, Wadham, and Tindall. Operation Starkey was to occur in early September, Operation Tindall in middle September, and Operation Wadham in late

September-all in 1943. The three deception plans were interwoven into one large deception story. 9 The Allies sent the Cockade story to the Germans by using double agents, decoy signals, fake troop concentrations, and increased reconnaissance and bombing missions into the areas of Boulogne, Brest, and Norway. 10

Operation Starkey involved a sham British and Canadian amphibious invasion into the Boulogne, France, area. For the Americans, the original Starkey deception plan involved 2,300 heavy bomber, 3,700 fighter, and four hundred medium bomber sorties to strike targets near Boulogne with the goal of convincing the Germans that the British and Canadian invasion preparations were authentic. 11 Additionally, the British were to provide another three thousand heavy bomber sorties into the Boulogne area. 12 Starkey was to culminate with a large feint involving sailing an amphibious force, consisting of 30 ships, off the Boulogne coast, hoping to lure in the Luftwaffe.

The Starkey plan encountered difficulties from the start. Maj Gen Ira C. Eaker, Eighth Air Force commander, criticized Starkey by saying that the plan would force the Americans to abandon their strategic bombing offensive. In a letter to Supreme Headquarters, Allied Expeditionary Force (SHAEF), Eaker said Starkey called for 2,300 heavy bomber sorties over 14 days "when the command had only flown 5,356 combat sorties in the past 8 months." 13 Although Eaker convinced SHAEF to lower the American commitment to three hundred heavy bomber sorties, he promised to provide as many bomber sorties as possible from newly organized bomber units undergoing training. When it was over, Eighth Air Force had flown a total of 1,841 bomber sorties. Other problems were encountered as well. Headquarters, VIII Air Support Command noted that Starkey planners had a difficult time agreeing on the rules of engagement for striking targets in occupied France. Addition ally, the British and Americans unwittingly duplicated efforts on several occasions by flying the same missions within a few days of each other. 14 The Royal Navy (RN) did not fully endorse the deception plan either. Starkey planners had wanted to place two RN battleships within the amphibious force to act as "cheese in the mouse trap" for the Luftwaffe. The RN was unwilling to risk its battleships in such a manner. 15 In short, the Starkey planners had to make several amendments to the deception plan.

Planners for Operation Wadham wanted the Germans to believe that the Americans were going to invade in the area of Brest, France. This story, which was totally fictional and involved minimal "real" forces, had an amphibious group sailing directly from the United States and another force from Great Britain-13 divisions in all-to conduct an invasion at Brest. 16 The premise of this story was that the Americans were planning to invade Brest following the successful invasion at Boulogne. Although the air commitment for this plan was considerably less than Starkey's, Eaker also criticized Wadham by saying that the combined bomber offensive would provide more effectiveness at destroying the Luftwaffe than the diverted bomber resources could provide in support of Wadham. 17 Other than air assets, the Americans only had to provide 75 dummy landing craft to aid in the deception effort. 18 The primary weakness in Wadham's story was that the US forces were going to land outside of Allied tactical air support range. Prior to the operation, the Army Operations Branch called Wadham a "very weak plan," but "essential as a part of COCKADE to reinforce STARKEY."19

Operation Tindall involved the story that the British and Americans were going to attack Norway, with the hypothetical goal of capturing Stavanger and its airfield. Stavanger and its airfield were critical to the story, for once again the Allies were planning a deception operation outside of tactical air support range and needed a way to increase the plausibility of the plan.<sup>20</sup> The five divisions that were to be used in the sham invasion were actual divisions camped in Scotland. Additionally, the Allies had adequate aircraft and naval assets in Scotland to make the deception plan plausible. The only "shortfall" the Allies had with Tindall was their lack of gliders. <sup>21</sup> The Allies hoped Tindall would induce the Germans to maintain the 12 divisions they had assigned to Norway. <sup>22</sup>

**Results of Cockade.** Operation Cockade failed to achieve its objectives. German leadership did not believe the Allies were going to invade western Europe in 1943, and Cockade did not trigger the air battle the Allies desired. <sup>23</sup> The main exception was Field Marshal Gerd von Rundstedt, the commander in chief of Western Command, who believed the Allies

were going to invade at Boulogne and was angry at the German high command for removing 10 divisions from France. 24 The invasion stories, particularly Starkey and Wadham, were not plausible and lacked credibility. There were no significant German reactions to these deception operations, to include a lack of air reconnaissance and neither a naval nor Luftwaffe response to the Starkey amphibious feint. 25 The fact the Germans moved 10 divisions out of northern France to other theaters indicated that Starkey and Wadham were abject failures. 26 In Norway, the Germans did keep force levels at 12 divisions, indicating the Germans assessed a higher threat there. 27 Besides being implausible, Cockade also failed because the Allies expended inadequate resources in making the deception look real. As noted earlier, the Royal Navy did not want to risk its battleships, and Eaker did not want to divert resources from the strategic bombing offensive. 28 Cockade did have one success: the Germans believed the story that the Allies had 51 divisions in the British Isles, when in reality there were only 17 divisions. This became a factor for deception operations in 1944. Overall, however, Cockade was best summarized by Sir Arthur "Bomber" Harris, commander of the British Bomber Command, when he said the deception plan was "at best a piece of harmless play acting."29

**Operation Bodyguard—1944.** Operation Bodyguard was the deception plan that supported the Normandy invasion—Operation Overlord. The Bodyguard objective, which was specified in the initial plan dated 20 January 1944, was to induce Germany to make "faulty strategic dispositions" before Operations Overlord and Anvil. The deception planners wanted the Germans to misallocate their resources by inducing them to reinforce northern Italy, the Balkans, Greece, and Scandinavia. 30 Bodyguard consisted of three primary operations—Zeppelin, Fortitude North, and Fortitude South—and numerous secondary operations.

**Operation Zeppelin.** Zeppelin involved a sham attack in the Balkans by British and American forces encamped in northern Africa. The goal was to induce the Germans to maintain a large defensive presence in the Balkans to prevent reinforcements into northern France. The Allies accomplished this objective by increasing the number of decoy landing craft in the eastern Mediterranean and by convincing the Germans that the Allies

had 39 divisions available to invade the Balkans. In reality, there were only 18 divisions in the theater. Hitler acknowledged this threat on 8 May when he referred to the proven "presence of battle-strength enemy divisions in Egypt." The sham called for the fictional British Twelfth Army to attack Greece and the real American Seventh Army to attack Yugoslavia. The Allies primarily used five double agents to transmit this story. <sup>31</sup> Zeppelin also entailed cooperation with the Soviets. The Soviets were to conduct amphibious feints towards Romania and Bulgaria that were to be timed in conjunction with the sham British and American invasion in the Balkans. <sup>32</sup>

**Operation Fortitude North.** Fortitude North involved a sham attack on Norway. The story was that the western Allies were going to attack Norway in the spring of 1944 with the goal of gaining an early lodgment in Denmark. As part of this story, the Allies created a fictional Fourth Army in Scotland that contained three corps with 250,000 troops-eight divisions overall.<sup>33</sup> One corps, the fictitious British VII Corps, was to capture Narvik while the other two corps, the British II Corps and the US XV Corps, were to capture Stavanger. To transmit this story to the Germans, the Allies used numerous double agents, false radio nets, and decoy camps. The Soviets colluded by faking offensive preparations aimed at Finland and northern Norway. 34 Additionally, Fortitude North was supported by Operation Graffham which involved using diplomatic pressure to gain over-flight rights and logistics support from Sweden. The Allies hoped that Sweden would leak these initiatives to Germany, thereby inducing the Nazis into thinking that future Allied operations were likely in Scandinavia. Both FHW and OKW assessed the threat to Norway as "credible." 35

**Operation Fortitude South.** Fortitude South was a two-phase deception plan centered on the Pas de Calais area. The first phase was intended to induce the Germans into thinking the main attack was going to occur in the Pas de Calais area, and not in Normandy, and that the invasion was going to occur in late July. The second phase, designed to start after Overlord, had the goal of convincing the Germans that the Normandy invasion was just a feint to draw in German reserves in preparation for the main effort that was going to occur in the Pas de Calais region. The Allies created a fictional army group, called the First United States Army Group (FUSAG), and placed it

under command of Gen George S. Patton Jr. FUSAG consisted of 150,000 "simulated" troops, including nine US and two Canadian divisions, and was located in eastern England-the most logical staging ground for an attack in the Pas de Calais area.37 Along with the "creation" of the FUSAG, the Allies ensured that the Pas de Calais area received more bombing and reconnaissance missions than Normandy. 38 In addition, the Allies used double agents, false radio signals, the press, and decoy sites to send this story to the Germans. Fortitude South was the centerpiece of the Bodyguard plan.

Other Bodyguard Stories. Operation Bodyguard used numerous other stories to mask Overlord. One story was that the strategic bombing campaign was siphoning resources away from a cross-channel invasion and that the invasion would have to be delayed. A similar story portrayed the Allies as being convinced that strategic bombing alone would defeat Germany, and thus an invasion would not be necessary. The Allies also tried to sell a story through diplomatic leaks that the Soviets were going to conduct a major offensive in July which was to be synchronized with the Allied invasion—this tale complemented the Fortitude South plan. In another story, the Allies were going to continue making their main effort in Italy, where they had been fighting since 1943.<sup>39</sup> Finally, the Allies also conducted Operation Copperhead which involved sending a man impersonating Gen Bernard Montgomery on a trip to Gibraltar and Algiers a week prior to the Normandy invasion. Copperhead was intended to convince the Germans that the invasion was not imminent, for Montgomery would not be traveling just before a big operation.40

Results of Bodyguard. Bodyguard was a tremendous success. The Germans were totally surprised on 6 June 1944 when the Allies landed in Normandy. This success was made evident on 5 June when Rundstedt disseminated a message stating the invasion was not imminent. Moreover, most of the senior officers of the German Seventh Army, which was assigned in the Normandy area, were out of garrison on the night of the invasion.41 Even after the Allies landed at Normandy, the Germans still did not know for certain if Normandy was just a feint or the main effort.

Bodyguard used a combination of stories and tactics to confuse and misdirect the Germans. For example, Zeppelin and Fortitude North were "ambiguity-type" deception operations. These two operations created uncertainty and inhibited accurate intelligence assessments, resulting in a German misallocation of forces to defend southern Europe and Scandinavia. 42 Fortitude South was an example of a "misleading-type" deception operation since it was designed to reduce "ambiguity" by "building up the attractiveness of one wrong alternative." 43 All three operations provided tangible results to the Allies.

Fortitude South was the most successful element of Bodyguard. Hitler, Rundstedt, and Gen Alfred Jodl (chief of the OKW operations staff) were all on record stating that Pas de Calais would be where the invasion would occur. The commander of Army Group B, Field Marshal Erwin Rommel, who had experienced numerous deceptions in the North African campaign, was suspicious of this story because he noticed the Luftwaffe had an easy time flying reconnaissance missions over the FUSAG area, whereas the air defenses over southern England were nearly impenetrable. 44 Despite this, the Germans were convinced of FUSAG's existence and thought it would play a key role in the invasion. This belief was reinforced by FHW and Abwehr (intelligence branch of the German armed forces) assessments in May 1944 that the Allies had 79 divisions in England, when in reality there were only 52—the difference primarily being FUSAG. Furthermore, the FHW believed the Allies had sufficient sea-lift to transport 15 divisions. 45 The second phase of Fortitude South was particularly effective. The Germans held the Fifteenth Army in the Pas de Calais area until 25 July awaiting FUSAG's operations. In all, the Germans held a total of 19 divisions—some admittedly understrength-in Belgium and Holland. 46 The withholding of these units helped ensure Normandy's success.

Fortitude North did its job by inducing the Germans to maintain their 12 divisions in Norway. Hitler was concerned about the threat to Norway, but not enough to increase the number of divisions there. In total, the Germans kept 18 divisions in Scandinavia during and immediately after the Normandy invasion. $^{47}$ 

Zeppelin achieved similar results. The Germans maintained 22 divisions in the Balkans and did not transfer any of them to northern France during the preparation period of Overlord.

Only one division was moved to northern France from the Bal-kans (another division was put in its place), but it did not arrive in time to influence the Allied lodgment. <sup>48</sup> The perceived threat posed by the Allies in the eastern Mediterranean was partially responsible for this result, but can not be considered the only explanation. Partisan activities in Yugoslavia and Greece influenced German decisions as well.

**Soviet Maskirovka Efforts.** An analysis of World War II deception would not be complete without at least a brief review of Soviet maskirovka efforts. The Soviets learned early in the "Great Patriotic War" that maskirovka was essential to defeating the Germans. The Russian concept of maskirovka denotes using deception, concealment, camouflage, and secrecy to surprise an adversary. Soviet deception efforts were primarily used to conceal large troop movements and concentrations to attain surprise for offensives. Although the Soviets were ineffective in their use of maskirovka in 1941, by 1943 they were experts. By then maskirovka was imbedded in all operations and at all levels of war. Its impact was evident in the battles of Stalingrad, Kursk, and the 1944 Soviet summer offensive in White Russia.

Stalingrad was the first real success for maskirovka. During the German drive to capture Stalingrad in the fall and winter of 1942, the Soviets pretended to be preparing for a winter offensive in the central theater near Moscow. This, combined with the stubborn Soviet defense of Stalingrad, gave the Germans a false sense of security that the Soviets were not going to attack their flanks in the southern theater. Soviet deception masked the movement and concentration of three hundred thousand troops, one thousand tanks, and five thousand guns that led to the encirclement of the German Sixth Army at Stalingrad. Of note, the Soviet feints in the central theater prior to the encirclement were so successful that the Germans sent 12 divisions to Army Group Center that were initially intended to support their Stalingrad and Caucasus operations. <sup>50</sup>

The battle of Kursk was also an example of effective Soviet maskirovka. While the Germans were preparing for their Kursk offensive, the Soviets created a story that they intended to conduct only defensive operations at Kursk. The reality was the Soviets planned a large counteroffensive at Kursk once they blunted the German attack. The Soviets concealed the Steppe

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Front, which consisted of five armies, behind the Kursk area of operations.<sup>51</sup> The Germans did not detect this Soviet buildup. Gen Reinhard Gehlen, chief of Foreign Armies East, erroneously predicted the Soviets would conduct only "local" attacks around Kursk to "gain a better jumping off place for the winter offensive."<sup>52</sup> Thus, the Steppe Front achieved total surprise when it counterattacked, and it pushed the Nazis back more than two hundred kilometers in some areas.

The most successful Soviet maskirovka effort occurred during the 1944 summer offensive against Germany's Army Group Center in White Russia. The Soviet story simulated preparations for a large offensive in the southern Ukraine and Crimea areas. In reality the Soviets secretly massed eight armies, consisting of four hundred thousand troops and three thousand tanks in the central theater. To Once again, Gehlen was totally fooled. His assessment in the spring of 1944 said Army Group Center could expect a "calm summer." Consequently, the Germans were totally surprised when Army Group Center was attacked, leading to the group's virtual annihilation. The Germans lost over 350,000 troops during the course of the Soviet offensive—three German armies ceased to exist.

In short, the Soviets achieved their greatest victories by fully integrating maskirovka into their operational planning and execution, and it was effectively integrated at all echelons. The result was the Germans often knew only the frontline Soviet troop dispositions—everything behind the front line was a "blur." The Germans routinely underestimated Soviet offensive strengths by 50 percent. <sup>56</sup>

As just seen, most Allied deception operations were successful. Barclay helped ensure Husky was a success, and thus the invasion of Sicily achieved operational surprise against the Germans and Italians. The most significant British and American deception operation was Bodyguard, which supported the Normandy invasion. William B. Breuer called Bodyguard the "greatest hoax that mankind has known." <sup>57</sup> The Soviets extensively used maskirovka to help defeat the Germans at Stalingrad, Kursk, and White Russia. The only major Allied deception plan that failed was Cockade. The following section provides a detailed analysis of the Allied deception operations and assesses why they were generally successful.

### Deception Lessons Learned from the Second World War

There is, by the way, very little doubt that the greatest deception efforts ever invested in a military operation were part of the preparation for the invasion of Normandy.

-Michael I. Handel

An analysis of Second World War deception operations offers significant lessons for future practitioners of military deception. Seven primary factors enabled successful Allied deception operations. Despite all the changes in technology and military doctrine, these seven deception factors are relevant for today's military strategists conducting joint operations planning.

#### **Control Key Channels**

The primary reason the British and Americans were successful with Operations Barclay and Bodyguard was that MI-5 (Brit ish security service responsible for security matters within the United Kingdom) controlled the Abwehr agents assigned against the western Allies. By the end of 1941, all of the German agents operating within Great Britain had been identified by MI-5 and had either switched their allegiances and were working for the Allies or had been executed.<sup>58</sup> More than 120 Abwehr agents worked for MI-5 at one time or another. 59 The significance of MI-5's success can not be overestimated. These double agents became the Abwehr's and, by extension, Hitler's primary source of intelligence on western Allied strategic plans and military preparations. It was not uncommon for Hitler to read Abwehr intelligence reports that had been written by the Allies only two days earlier.60 Bodyguard gave the double agents, which it termed "special means," a central role in conveying the various deception stories created to mask the Normandy invasion. 61 In short, the western Allies were in the enviable position of having a direct conduit to the senior German leaders for their deception stories.

Along with the double agents, the Allies also used bogus communications networks to buttress the stories that the double agents were sending. For example, when the double agents sent information on FUSAG and the Fourth Army, the sham units located in east England and in Scotland, the Allies com-

plemented the stories by developing fake communications nets to convince German signals intelligence (SIGINT) authorities that there were large military formations in these areas. The double agents and SIGINT were often the only intelligence sources available to the Germans after mid-1943.

This lesson has relevance for today's joint planners since deception stories still have to be introduced and conveyed through the adversary's intelligence channels. Military strategists still have to identify the most appropriate means of conveying deception stories to the enemy and to ensure that all the various channels of intelligence accessible to the adversary convey information consistent with those stories. The deception story has to be sent while the truth has to remain hidden. Consequently, deception planners need to either exploit or deny critical channels of information available to the enemy. <sup>62</sup> Therefore, information warfare, which includes actions "taken to achieve information superiority by affecting adversary information, information-based processes, information systems, and computer-based networks," will be critical to future deception operations. <sup>63</sup>

#### **Intelligence Preparation and Intelligence Feedback Are Critical**

Allied deception planners had accurate and responsive intelligence. They received intelligence on Germany's leaders, their deception vulnerabilities, and their perceptions of Allied capabilities and likely courses of action. The Allies also had unprecedented feedback about Allied deception efforts. This superb intelligence was largely due to Ultra, which was intelligence derived from decrypting German signals enciphered by the Enigma machine.

Ultra was the second most important reason for Allied deception successes. British intelligence broke the Abwehr's hand codes by January 1940 and the Enigma cipher by December 1941.<sup>64</sup> Eventually, all of the various Enigma systems were broken by the British. By the end of the war, British and American intelligence organizations were reading two thousand to four thousand deciphered German messages every day.<sup>65</sup>

Ultra provided intelligence on German senior leadership's perceptions and gave valuable feedback on deception operations that the Allies were conducting. A perfect example of this

occurred with Fortitude South. On 9 June 1944, just three days after Overlord, Hitler ordered the Fifteenth Army in the Pas de Calais region to deploy to Normandy to attack the Allied beachhead. Ultra quickly provided this information to the Allies. Subsequently, the Allies had a double agent send a message to the Abwehr that FUSAG was preparing to initiate amphibious landings in the Pas de Calais area. <sup>66</sup> Hitler then countermanded his initial order on 11 June and had the Fifteenth Army redeploy to the Pas de Calais area, where it remained until 25 July awaiting the FUSAG attack. <sup>67</sup>

Soviet intelligence was also effective in enhancing deception operations. Although the Soviets did not have direct access to Ultra (the British did relay some Ultra information to the Soviets), their intelligence, following Stalingrad, was successful in identifying Germany's strategic and operational plans along with German deception efforts. It also provided accurate feedback on Soviet deception operations. For example, the Germans conducted fake offensive preparations in the Caucasus before the battle of Kursk to deceive the Soviets as to where the 1943 summer offensive would be directed. Soviet intelligence, however, was able to identify Kursk as the target. Soviet partisans behind German lines contributed significantly to this effort. The partisans also provided feedback to the Soviets on their own deception efforts to mask the looming Soviet counteroffensive.

Allied intelligence effectiveness was vastly greater than that of Germany, especially in comparison to Abwehr operations in the West. Abwehr's operations, as already mentioned, were compromised early in the war by Ultra. The Ultra operation was facilitated by the Poles who gave the British a captured Enigma machine in 1939.68 But Ultra was just a part of the Germans' problem. The German intelligence community had deep antagonisms, especially between the Abwehr and the Sicherheitsdienst (SD), the Nazi security service. 69 The Abwehr and SD did not cooperate with each other and often worked at cross-purposes. In addition to Ultra and the contentions between the Abwehr and SD, MI-6 (British security service, also known as the Secret Intelligence Service, responsible for collecting foreign intelligence) had penetrated the Abwehr before the war. MI-6 had an agent who worked in the Abwehr intelligence school located in Hamburg.70 As a result, the British were able to identify many of the early German agents before they even left

German soil. The Abwehr never recovered from these early setbacks and the conflict with the SD. Thus, the German intelligence community was susceptible to Allied deception and easily exploitable by Allied intelligence.

Today's joint planner needs to ensure that intelligence is closely integrated into deception planning and operations. Deception planners need intelligence to identify enemy perceptions, channels of information, and susceptibility to deception. Planners also need methods to gather feedback. Allied intelligence successfully provided such information, whereas Germany's intelligence failed. The Allies won the intelligence war and the impact was most prominent with Allied deception efforts.

#### **Need High-Level and Centralized Deception Planning**

The Allies had to build a deception organization that could exploit double agents and Ultra before their deception operations could become effective. The British early in the war had to overcome compartmentalization of their deception efforts, double agents, and Ultra. In 1941 the British organized the London Controlling Section (LCS) which was to provide centralized and high-level deception planning. In July 1942 the LCS integrated its deception planning with MI-5, to include its subordinate XX Committee that controlled the double agents, and with MI-6, which directed Ultra operations. Moreover, the LCS was made subordinate to the service chiefs to guarantee that deception plans were organized in support of strategic and operational objectives. The synergistic merging of the double agents, Ultra, and operations into deception planning created the foundation for success with Operations Barclay and Bodyguard.

Great Britain was not the only Allied state to have a centralized controlling authority for deception. The Americans, largely at the behest of the British, created the Joint Security Control to coordinate US deception efforts. The Americans, although slow to embrace deception, became full partners with the British in carrying out the Bodyguard deception efforts. Even more so than the British and Americans, the Soviets developed deception plans at the highest levels of their government, with Stalin and Gen Georgi Zhukov, chief of the Soviet general staff and a deputy supreme commander, often developing strategic deception plans themselves. The various organizations the Brit-

ish, Americans, and Soviets developed all provided high-level and centralized control of deception operations. This ensured that deception and operational plans were cohesive and that the various governmental elements portrayed the same deception stories.

This principle of centralized control must be a bedrock for today's joint deception planning. Strategic and operational deception planning must be centralized and located high within the combatant command organization, and those plans should be coordinated with the National Security Council. This will ensure all instruments of power are integrated into deception planning, and all actions are consistent with the deception story. High-level centralized planning ensures that critical information, which otherwise might remain compartmentalized, can be shrewdly exploited for deception purposes.

#### **Sound Deception Execution**

Although the Allies had the tools and organization to conduct successful deception operations, they still had to smartly execute those deception plans to bring them to fruition. The Allies, with only a few exceptions, did a superb job executing deception plans. They were particularly effective in creating credible stories, in using "conditioning," and in transmitting the stories to the Germans.

Plausible Stories and Preexisting Beliefs. The Allies had the most success with their deception operations when they created deception stories that were deemed credible by the Abwehr and German senior leaders, especially when those stories conformed to Hitler's preexisting beliefs. The most successful deception stories were apparently as reasonable as the truth. Operations Fortitude South, Zeppelin, and Barclay, as well as Soviet deception in support of the operations at Stalingrad, Kursk, and the 1944 summer offensive, all exploited German leadership's preexisting beliefs and were, therefore, incredibly effective. For example, Hitler called Norway the "zone of destiny of this war" and was, consequently, quick to believe Allied deception stories that involved the invasion of Norway. 73 In contrast, Operations Wadham and Starkey were failures for they had implausible stories and were not believed by Hitler. It was inconceivable, for example, that American forces would land on

Brittany without air protection or that the British would conduct a major landing without battleship support. 74

Exploiting enemy perceptions and expectations will remain critical in future deception operations. The Central Intelligence Agency (CIA) underscored this point in 1980 when it reported an analysis of a 131 battles that showed deception operations will be successful, defined as attaining surprise, 96 percent of the time when the deceiver exploits the adversary's preexisting beliefs.75

Conditioning. The Allies used conditioning to make their deception stories more credible. It is human nature to base expectations on what has been seen in the past, even if those past experiences represent only a small sample size. <sup>76</sup> During the 1944 summer offensive against Germany's Army Group Center, the Soviets conducted a deception campaign to convince the Germans that the Red Army was going to attack in the southern theater. The Germans were conditioned to believe this as most of the Soviet offensives in 1943 and 1944 to that point were conducted in the southern theater. 77 Similarly, the British LCS conditioned Abwehr and Hitler to believe the double agents by frequently having the double agents send accurate, but harmless, intelligence that the Germans could verify. A good example was when the LCS had a double agent send a report that a British warship was sailing to Gibraltar. The British first used Ultra to verify that no German submarines could intercept the warship. German spies in Spain later verified the arrival of the warship at Gibraltar, enhancing the credibility of that double agent. 78 Conditioning is still a viable tactic that can be exploited by our strategists.

Putting the Puzzle Together. The Allies routinely gave the German intelligence organizations only bits and pieces of the deception story at any given time and allowed the Germans to develop their own faulty assessments. The Allies did not make the deception stories too obvious, for then the Germans would have been more apt to detect the deception efforts. Instead, the Allies sent only elements of the stories through various channels and hoped the Germans would piece the puzzle together in a way that matched the Allied story. And this the Germans usually did. German intelligence organizations worked hard only to build faulty assessments that were pleasing to Allied strategists. This is an effective tactic since intelligence "windfalls" are subject to close scrutiny and are not usually believed. "Targets" are increasingly apt to believe a deception story the more they have to work at finding it. <sup>79</sup> This premise is best stated by Charles Cruickshank, a historian on World War II deception. "The perfect deception plan is like a jigsaw puzzle. Pieces of the information are allowed to reach the enemy in such a way as to convince him that he has discovered them by accident." Col Dudley W. Clarke, the chief of "A" Force (the group that directed all deception operations in the Mediterranean theater), underscored this concept as well when he stated that "A" Force "will arrange to plant the BARCLAY story in piecemeal fashion up the enemy's secret service." <sup>81</sup>

#### **Deception Supports Strategic and Operational Objectives**

Allied deception efforts successfully supported strategic and operational aims and, thus, played a major role in Allied victories. The most successful operations, like Fortitude South, caused the Germans to make decisions and take actions that benefited Allied strategic and operational goals—this should be the aim of all deception. Deception must not be done just for the sake of doing deception. It must be closely integrated into operational and strategic planning to ensure that the actual and deception objectives are cohesive. See For example, Operation Cockade may have hindered Overlord by trying to convince the Germans that the Allies were ready for a 1943 cross-channel invasion. After exaggerating the threat in 1943, the Allies then had to backtrack in 1944 and underplay the threat so the Germans would think the Allies would not be ready for a cross-channel attack until July or August, vice June.

Today's strategists need to realize that deception may have unintended consequences that could hinder future operations. The best way to minimize this risk is to integrate deception planning at the beginning of strategic and operational planning. This planning should start with the commander providing initial direction—a commander's intent—and stating desired end results to deception planners. 83

#### **Maintain Secrecy**

Sir Michael Howard identified security as one of the two pillars of deception, the other being intelligence.<sup>84</sup> The Allies

demonstrated exceptional security by vigorously concealing their operational and deception campaign plans. For example, Churchill, on behalf of Gen Dwight D. Eisenhower, took the extraordinary security measures of prohibiting all diplomatic communications and travel out of Great Britain for two months prior to Overlord.85 Moreover, when building false communication nets, Great Britain and the United States would even encipher their false communications in such a manner that they would be deemed realistic by the Germans if they were deciphered—in other words, the Allies ruled out enciphered communications filled with "nonsense." 86 Similarly, the Soviets showed security consciousness by not printing orders and through rigid compartmentalization.<sup>87</sup> Often, Soviet soldiers did not know their orders until just before their attacks. The Allied experience shows successful deception requires demanding that security be based on a strict "need to know" philosophy. Both the actual and the deception plans are symbiotic and, therefore, both must be vigorously protected. As an example, the plan for Barclay stated that "none of the deception measures are likely to be effective unless complete security can be achieved in respect of the destination and date of departure of the Husky forces."88 The converse would have also been true about Husky if Barclay had been compromised. In general, deception plans should receive the same level of security as actual operation plans—no more and no less. 89

Although security is critical to deception, there has to be some coordination between key agencies to execute deception plans. Too much security can cause deception operations to be ineffective. This was the case prior to 1942 when British deception planners did not have access to double agents or Ultra due to overcompartmentalization. Without access to the double agents and Ultra, Allied deception efforts in World War II likely would have failed. This conclusion illustrates the dilemma between coordination and compartmentalization—the premise behind "need to know" policies—and shows that a careful balance between the two must be found.

#### **Deception Requires Time**

Deception operations need to be planned and executed far in advance of actual operations.<sup>90</sup> Last minute stories are hard to convey to the adversary without creating suspicion. Operation

Starkey is an example of a deception plan that was given several late changes that helped doom it to failure. The British and Americans withdrew key naval and air assets from this deception plan just before its execution. Despite the changes, the LCS tried to execute a quickly modified deception plan. The results were predictable in that the Germans failed to show any reaction to the deception operation. 91 Much time is required to send elements of the story to the enemy and for the enemy to piece those elements together to form a picture. Deception requires forethought and methodical planning and execution.

In summary, Allied deception efforts displayed seven key characteristics, or factors, that guaranteed their success. The most important of these factors was that the Allies controlled the key channels of information. The next most important factor was that the Allies had superior intelligence and received feedback on their deception operations. The other factors were that the Allies had centralized controlled over their deception planning, effectively practiced proven deception tactics, ensured deception operations were subordinate to strategic objectives, maintained stringent secrecy, and provided enough time to execute deception plans shrewdly. All of these factors are relevant for today's deception planning and execution. These deception factors provided what Barton Whaley described in his analysis of deception theory when he said, "The ultimate goal of strata gem is to make the enemy quite certain, very decisive, and wrong."92

#### US Joint Doctrine and the Lessons from World War II

Although deceit is detestable in all other things, yet in the conduct of war it is laudable and honorable, and a commander who vanquishes an enemy by stratagem is equally praised with one who gains victory by force.

-Niccolo Machiavelli

Joint Pub 3-58, Joint Doctrine for Military Deception, provides comprehensive doctrine on deception planning and operations for the operational level of war. Accordingly, the joint publication presents principles and guidelines that adequately reflect "the seven factors" identified from analysis of Second World War deception operations. As such, the terminology and themes

covered in the publication mirror those given in the 1947 briefings presented at the Naval War College and the National War College on why Operation Bodyguard was successful. The current deception doctrine shows that the fundamentals of deception have not changed significantly since World War II.

#### **Potential Areas for Improvement**

Although Joint Doctrine for Military Deception reflects the critical lessons learned from World War II, the publication could be improved by adding more emphasis on the importance of deception in achieving surprise, by showing the need to integrate deception planning at the strategic level so that all instruments of power can be exploited, and by further describing the importance of exploiting the target's preexisting beliefs. In short, this publication can be improved with minor modifications.

**Correlate Deception with Surprise.** Although Joint Doctrine for Military Deception defines deception, identifies the principles of deception, and describes various planning guidelines for deception, it does not highlight the importance and the value of conducting deception in support of military operations. The publication should encourage the use of deception by stressing how it has often been the central element in achieving surprise in warfare. Joint Pub 3-58 simply says that deception "assists a commander in attaining surprise, security, mass, and economy of force." This is not enough. Deception should be a critical strand in most operation plans. Thus, planners must be convinced of the importance of deception.

The history of World War II deception underscores this necessity. According to Gen Vasil I. Chuikov, the commander of the Eighth Guards Army that fought from Stalingrad to Berlin, the Soviets were able to consistently defeat the Germans after Stalingrad when they integrated maskirovka into their operations. When the Red Army did not fully employ maskirovka, the Germans were able to prepare solid defenses and blunt Soviet attacks. He Soviets from 1943 to 1944 could only achieve military success against the Germans by gaining surprise, and they could only achieve surprise through maskirovka. The Normandy invasion also attests to the importance of deception. The western Allies could have suffered a crushing defeat if the German high command had not accepted the Fortitude South de-

ception story and had, in turn, expected an invasion in Normandy. The Fifteenth Army, which was held in the Pas de Calais region, could have jeopardized the entire Normandy operation. Therefore, Bodyguard was instrumental to the success of Overlord. These results are not unusual. The 1980 CIA study showed that past deception operations have been 81 percent effective in helping military operations achieve surprise against adversaries. Joint Pub 3-58 needs to do more than just define and explain deception. The publication should encourage the use of deception by showing its value as a force multiplier.

**Deception Should be Integrated at All Levels of War.** The joint doctrine on deception primarily focuses its application at the operational level of war, which is to be expected since Joint Pub 3-58 is primarily intended for use within combatant commands. This emphasis, however, means that the importance of deception is not discussed as it relates to the strategic level of war. Deception viewed solely from the operational level tends to ignore the value of involving all the instruments of power in deception campaign planning.

Deception should to be incorporated and integrated into all three levels of war to be most effective. Strategic, operational, and tactical level deception operations must be cohesive and, as Colonel Clarke stated in 1942, should be viewed as "different instruments that play in a single orchestra for which there is only one conductor." Because the Allies planned deception at the highest levels, they were able to achieve unity of effort by coordinating operations that involved all four instruments of power, not just the military instrument. For example, the British were able to influence the Norwegian and Swedish stock markets in support of Fortitude North. They used diplomatic maneuvering against the Swedes in support of Fortitude North and the Turks in support of Zeppelin. They used coordination beyond just SHAEF.

The bottom line here is that deception can not be left at the combatant command level and below. Deception objectives must be supported at levels above the combatant commands to provide unity of effort. The supported commander in chief must coordinate a strategic level deception strategy with the chairman of the Joint Chiefs of Staff and with the National Security Council. It is only at this level that future US deception efforts

can match the successes of Allied deception operations in the Second World War.

Exploiting Preexisting Beliefs Works Best. Although Joint Pub 3-58 alludes to the importance of knowing the enemy's perceptions and in creating deception stories that are plausible, it does not adequately stress the importance of exploiting preex isting beliefs. Donald Daniel and Katherine Herbig, two experts and authors on military deception, observe that deceptions "which slant the target's mind-set in directions he is predisposed to take have a higher probability of convincing him than those which run against the grain of his expectations and as sumptions." Furthermore, they note that the stronger a target's predispositions, the "more a target will ignore information inconsistent with them."98 World War II showed their analysis to be accurate. Hitler feared Allied attacks on Norway, Greece, and the Pas de Calais region, and Allied deception efforts involving these areas were most effective. US joint doctrine should further stress this critical facet of deception.

In summary, contrasting the key factors of World War II deception operations with the Joint Doctrine for Military Deception shows some minor improvements could be made to the doctrine. Joint Pub 3-58 should encourage the use of deception by presenting the cause and effect relationship between deception and surprise, by describing the importance of integrating deception at all levels of war, and by further highlighting the positive effect associated with using preexisting beliefs for deception stories. These minor improvements would bolster an already comprehensive and effective joint publication.

#### Conclusion

The Second World War showed the critical role deception can play in achieving campaign objectives. This research project reviewed and analyzed six major Allied deception operations. Five of these operations were successful in helping the Allies achieve devastating victories over the Germans. A thorough analysis of these operations revealed seven key factors that enabled the Allies to plan and execute successful deception operations. These factors are relevant for today's joint planner. Because of their continued relevance, Joint Pub 3-58, Joint Doctrine for Military Deception, should reflect these seven factors. A careful review of the publication, however, showed that some minor improvements could be made to the doctrine to better reflect the still viable lessons that brought Allied success in the deception domain.

The Allies were able to use deception as a tremendous force multiplier through shrewd planning and execution. Today's strategists and planners should be prepared to use this force multiplier with equal flair. Understanding and applying the lessons learned from World War II will provide a foundation for success for future deception operations. General Eisenhower's admonition is still true today. "No major operation should be undertaken without planning and executing appropriate deception measures." 99

#### Notes

- 1. Sun Tzu, The Art of War, trans. Samuel Griffith (Oxford: Oxford University Press, 1971), 106.
- 2. Naval War College, Briefing on Military Cover and Deception (Strategic) (Maxwell AFB, Ala.: Air Force Historical Research Agency (AFHRA), USAF Collection, call no. 180.9811-4, 1947), 2.
- 3. Michael Howard, British Intelligence in the Second World War, vol. 5, Strategic Deception (New York: Cambridge University Press, 1990), 107.
- 4. Dudley W. Clarke, "A" Force commander, Operation Barclay (Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. MF25242, IRIS no. 02007569, 1943).
  - 5. Howard, 92.
  - 6. Clarke.
  - 7. Howard, 89.
  - 8. Ibid., 92.
- 9. Secretary, Chiefs of Staff Committee, Offices of the War Cabinet, Operation Cockade (Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 505.61-15, IRIS no. 00286425, 3 June 1943).
- 10. Charles Cruickshank, Deception in World War II (Oxford: Oxford University Press, 1979), 75.
  - 11. G-5 Section, ETOUSA, U.S. Commitments to Operation Cockade.
- 12. Secretary, Chiefs of Staff Committee, Offices of the War Cabinet, Operation Cockade.
- 13. Ira C. Eaker to Lt Gen Jacob L. Devers, letter, subject: Operation Cockade, 7 June 1943, Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 505.61-15, IRIS no. 00286425.
- 14. Headquarters, VIII Air Support Command, Starkey Summary (Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 532.5401B, IRIS no. 00232197, 30 September 1943).
- 15. Historical Subsection, Office of Secretary, General Staff, Supreme Head-quarters, Allied Expeditionary Force (SHAEF), The History of COSSAC (Maxwell

- AFB, Ala.: AFHRA, USAF Collection, call no. 506.01A, IRIS no. 00206749, 1945), 19,
- 16. Army Operations Branch, Operation Wadham (Maxwell AFB, Ala.: AF-HRA, USAF Collection, call no. 502.451, IRIS no. 00205091, 15 June 1943).
  - 17. Eaker to Devers, letter.
  - 18. G-5 Section, ETOUSA, U.S. Commitments to Operation Cockade.
  - 19. Army Operations Branch, Operation Wadham.
- 20. Chiefs of Staff Committee, Offices of the War Cabinet, Operation Tindall (Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 505.61-45, IRIS no. 00206455, 1943).
- 21. Historical Subsection, Office of Secretary, General Staff, SHAEF, The History of COSSAC, 19.
  - 22. Cruickshank, 77-78.
- 23. Royal Air Force, RAF Narrative on the Liberation of North West Europe (Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 512.041-38 vol. 1, IRIS no. 00895753, 1946), 59.
  - 24. Howard, 103.
- 25. Office of Deputy Chief of Staff, Headquarters VIII Air Support Command, Memorandum Concerning Feedback on Operation Starkey (Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 532.4501B, IRIS no. 00232193, 1943).
  - 26. Cruickshank, 73.
  - 27. Howard, 82.
- 28. Royal Air Force, RAF Narrative on the Liberation of North West Europe, 58.
  - 29. Cruickshank, 63.
- 30. Combined Chiefs of Staff, United States and United Kingdom, Plan Bodyguard (Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 119.04-8, IRIS no. 00110617, 1944).
  - 31. Howard, 136-37.
- 32. Combined Chiefs of Staff, United States and United Kingdom, Plan Bodyguard.
- 33. William B. Breuer, Hoodwinking Hitler: The Normandy Invasion (Westport, Conn.: Praeger Publishers, 1993), 123.
- 34. Combined Chiefs of Staff, United States and United Kingdom, Plan Bodyguard.
  - 35. Howard, 117.
- 36. Commander in Chief, 21st Army Group, Allied Navy Expeditionary Force Commander, and Commander in Chief of Allied Expeditionary Air Force, Operation Overlord: Cover and Diversionary Plans-Fortitude Plan (Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 505.61-2, IRIS no. 00206431, 1944), 1.
  - 37. Breuer, 110.
  - 38. Howard, 122.
- 39. Combined Chiefs of Staff, United States and United Kingdom, Plan Bodyguard.
  - 40. Breuer, 169.
  - 41. Ibid., 183.
- 42. Donald C. Daniel and Katherine L. Herbig, "Propositions on Military Deception," in Military Deception and Strategic Surprise, eds. J. Gooch and A. Perlmutter et al. (London: Frank Cass, 1982), 157.
  - 43. Breuer, 158.

- 44. Ibid., 183.
- 45. Howard, 114.
- 46. Ibid., 187.
- 47. Cruickshank, 113.
- 48. Howard, 115.
- 49. David M. Glantz, Soviet Military Deception in the Second World War (London: Frank Cass, 1989), 2.
  - 50. Ibid., 109-111.
  - 51. Ibid., 154.
- 52. David Kahn, Hitler's Spies: German Military Intelligence in World War II (New York: Macmillian Publishing Company, 1978), 440.
  - 53. Glantz, 362-70.
  - 54. Kahn, 440.
  - 55. Glantz, 362-70.
  - 56. Ibid., 291, 565.
  - 57. Breuer, 238.
  - 58. Howard, 4.
  - 59. Cruickshank, 217.
- 60. National War College, Briefing on Measures to Deceive the Enemy (Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 175.1-14, IRIS no. 01005487, 1947), 6.
- 61. Combined Chiefs of Staff, United States and United Kingdom, Plan Bodyguard.
- 62. Central Intelligence Agency (CIA), Deception Maxims: Fact and Folklore (Office of Research and Development, 1980), 25.
- 63. Air Force Doctrine Document (AFDD) 1, Air Force Basic Doctrine, September 1997, 81.
  - 64. Howard, 14.
  - 65. Breuer, 46.
  - 66. Ibid., 221.
  - 67. Naval War College, 27.
- 68. Diane T. Putney, ed., ULTRA and the Army Air Forces in World War II (Washington, D.C.: Office of Air Force History, 1987), 77.
- 69. Jock Haswell, D-Day: Intelligence and Deception (New York: Times Books, 1979), 47.
  - 70. Ibid., 58.
  - 71. Howard, 22-26.
  - 72. Ibid., 28.
  - 73. Kahn. 465-66.
  - 74. Cruickshank, 84.
  - 75. CIA, DeceptionMaxims, 5.
  - 76. Ibid., 9.
  - 77. Glantz. 370-77.
  - 78. Breuer, 99.
  - 79. CIA, DeceptionMaxims, 40.
  - 80. Cruickshank, 1.
  - 81. Clarke.
  - 82. Naval War College, 29.
  - 83. National War College, 4.
  - 84. Howard, ix.

- 85. Breuer, 142.
- 86. Cruickshank, 105.
- 87. Glantz, 569.
- 88. Clarke.
- 89. Naval War College, 29.
- 90. Ibid.
- 91. Cruickshank, 62-73.
- 92. Michael I. Handel, "Intelligence and Deception," in Military Deception and Strategic Surprise, eds. J. Gooch and A. Perlmutter et al. (London: Frank Cass, 1982), 121.
  - 93. Joint Publication 3-58, Joint Doctrine for Military Deception, 1994, I-2.
  - 94. Glantz, 221.
  - 95. CIA, Deception Maxims, 9.
  - 96. Howard, 39.
  - 97. Cruickshank, 135.
  - 98. Daniel and Herbig, "Propositions on Military Deception," 172.
- 99. Thomas A. Savoie, "Are We Deceiving Ourselves?" Military Review, March 1987, 38.

## **Bibliography**

- Air Force Doctrine Document (AFDD) 1. Air Force Basic Doctrine, September 1997.
- Army Operations Branch. Operation Wadham. Maxwell AFB, Ala.: Air Force Historical Research Agency (AFHRA), USAF Collection, call no. 502.45-1, IRIS no. 00205091, 15 June 1943.
- Breuer, William B. Hoodwinking Hitler: The Normandy Invasion. Westport, Conn.: Praeger Publishers, 1993.
- Central Intelligence Agency. Deception Maxims: Fact and Folklore. Office of Research and Development, 1980.
- Chief of Staff, Supreme Allied Commander. Plan Operation Starkey. Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 532.4501B, IRIS no. 00232193, 1943.
- Chiefs of Staff Committee, Offices of the War Cabinet. Operation Tindall. Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 505.61-45. IRIS no. 00206455, 1943.
- Combined Chiefs of Staff, United States and United Kingdom. Plan Bodyguard. Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 119.04-8, IRIS no. 00110617, 1944.
- Commander in Chief, 21st Army Group; Allied Navy Expeditionary Force Commander; and Commander in Chief, Allied Expeditionary Air Force. Fortitude Plan. Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 505.61-2, IRIS no. 00206431, 1944.
- Clarke, Dudley W. "A" Force Commander. Operation Barclay. Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. MF 25242, IRIS no. 02007569, 1943.
- Cruickshank, Charles. Deception in World War II. Oxford: Oxford University Press, 1979.
- Daniel, Donald C., and Katherine L. Herbig. "Propositions on Military Deception." In Military Deception and Strategic Surprise. Edited by J. Gooch and A. Perlmutter et al. London: Frank Cass, 1982.
- Eaker, Ira C. Letter to Lt Gen Jacob L. Devers. Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 505.61-15, IRIS no. 00286425, 7 June 1943.
- G-5 Section, ETOUSA. U.S. Commitments to Operation Cockade. Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 505.61-15, IRIS no. 00286425, 1943.

- Glantz, David M. Soviet Military Deception in the Second World War. London: Frank Cass, 1989.
- Handel, Michael I. "Intelligence and Deception." In Military Deception and Strategic Surprise. Edited by J. Gooch and A. Perlmutter et al. London: Frank Cass, 1982.
- Haswell, Jock. D-Day: Intelligence and Deception. New York: Times Books, 1979.
- Headquarters, VIII Air Support Command. Starkey Summary. Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 532.45-01, IRIS no. 00232197, 30 September 1943.
- Historical Subsection, Office of Secretary, General Staff, Supreme Headquarters, Allied Expeditionary Force. History of COSSAC. Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 505.01A, IRIS no. 00206749, 1945.
- Howard, Michael. British Intelligence in the Second World War, vol. 5, Strategic Deception. New York: Cambridge University Press, 1990.
- Joint Publication 3-58. Joint Doctrine for Military Deception. 1994.
- Kahn, David. Hitler's Spies: German Military Intelligence in World War II. New York: Macmillian Publishing Company, 1978.
- National War College. Briefing on Measures to Deceive the Enemy. Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 175.1-14, IRIS no. 01005487, 1947.
- Naval War College. Briefing on Military Cover and Deception (Strategic). Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 180.9811-4, 1947.
- Office of Deputy Chief of Staff, Headquarters Eighth Air Support Command. Memorandum Concerning Feedback on Operation Starkey. Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 532.4501.B, IRIS no. 00232193, 1943.
- Putney, Diane T., ed. ULTRA and the Army Air Forces in World War II. Washington, D.C.: Office of Air Force History, 1987.
- Royal Air Force. RAF Narrative on the Liberation of North West Europe. Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 512.041-38, vol. 1, IRIS no. 00895753, 1946.
- Savoie, Thomas A. "Are We Deceiving Ourselves?" Military Review, March 1987.

- Secretary, Chiefs of Staff Committee, Offices of the War Cabinet. Operation Cascade. Maxwell AFB, Ala.: AFHRA, USAF Collection, call no. 00286425, 3 June 1943.
- Sun Tzu. The Art of War. Translated by Samuel Griffith. Oxford: Oxford University Press, 1971.