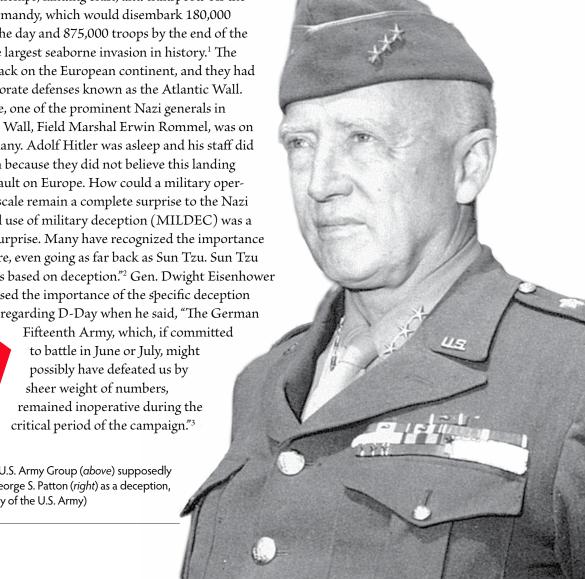
Assault on **Fortress Europe** Military Deception and **Operation Fortitude South**

Lt. Jason Carminati, U.S. Navy

n 6 June 1944, the Allied forces had amassed close to six thousand warships, landing craft, and transports off the coast of Normandy, which would disembark 180,000 troops by the end of the day and 875,000 troops by the end of the month to conduct the largest seaborne invasion in history. The Nazis expected an attack on the European continent, and they had already prepared elaborate defenses known as the Atlantic Wall. Despite this, on 6 June, one of the prominent Nazi generals in charge of the Atlantic Wall, Field Marshal Erwin Rommel, was on his way back to Germany. Adolf Hitler was asleep and his staff did not want to wake him because they did not believe this landing could be the main assault on Europe. How could a military operation of this size and scale remain a complete surprise to the Nazi leadership? Successful use of military deception (MILDEC) was a pivotal factor to the surprise. Many have recognized the importance of MILDEC in warfare, even going as far back as Sun Tzu. Sun Tzu said that "all warfare is based on deception." ² Gen. Dwight Eisenhower stressed the importance of the specific deception

> Fifteenth Army, which, if committed to battle in June or July, might possibly have defeated us by sheer weight of numbers, remained inoperative during the critical period of the campaign."3

Symbol of the fictional 1st U.S. Army Group (above) supposedly commanded by Lt. Gen. George S. Patton (right) as a deception, 7 July 1944. (Photo courtesy of the U.S. Army)



The German 15th Army was inoperative because the Nazi leadership retained it in reserve due to a perceived threat to the Pas-de-Calais region of France.



Juan Pujol García MBE (1912–1988) was a Spanish spy who acted as a double agent with loyalty to Great Britain against Nazi Germany during World War II. (Photo courtesy of Wikipedia)

MILDEC is a force multiplier that the United States will undoubtedly need in any fight against near-peer competitors. U.S. military planners can and should use the successful aspects of Operation Fortitude South as a case study for the importance of MILDEC in near-peer conflict due to the scale of the deception techniques used and the impact that it had on operations on the ground.

Operation Fortitude South was a successful Allied deception operation that misled the Nazis about the invasion of

western Europe by threatening Pas-de-Calais and portending multiple probing invasions. Defending against the invasion of western Europe was very important for Hitler, so how did he make such a large miscalculation?⁴ Although Hitler created institutions that made Germany susceptible to deception, the credit for the success of Operation Fortitude South belongs to the Allies and their competence at MILDEC. An examination of the Allies' use of spies, signals intelligence,

Lt. Jason Carminati, U.S. Navy, is a Navy SEAL pursuing an MS in defense analysis with a specialty in irregular warfare at the Naval Postgraduate School in Monterey, California. He holds a BS in physics from the U.S. Naval Academy and served with east coastand gulf coast-based naval special warfare units. He has deployed in support of U.S. Africa Command, U.S. European Command, and U.S. Southern

Command operations.

and physical deception measures illustrates the Allies' skill in MILDEC and mastery of uncertainty. These correlate with the three primary means of MILDEC in U.S. joint doctrine: physical means, technical means, and administrative means.5 Operation Fortitude South exemplified Sun Tzu's theories on uncertainty in war. Sun Tzu argued that uncertainty should be mastered and exploited;

the Allies exemplified this by increasing the Germans' fog of war while reducing it for themselves.

Successful Allied Aspects of the Operation

Spies. The Allies perfected the use of spies as a tool to both improve their own knowledge of the enemy and to spread credible disinformation to the Nazis. Sun Tzu asserted that spies are very useful tools when he said, "Secret operations are essential in war; upon them the army relies." The Allies utilized multiple types of spies that reflected Sun Tzu's theories. The use of double agents and execution of counterintelligence was very effective in Operation Fortitude South. In fact, every Nazi spy who was operating in England had been captured and executed or turned into a double agent. British intelligence turned three important German agents, which was critical at passing seemingly reli-

able information to the Nazis.⁸ Almost all of the controlled leaks to the Germans were sent through two of these controlled agents, Juan Pujol Garcia and Roman Garby-Czerniawki, known by their codenames Garbo and Brutus, respectively.⁹ The British used these agents primarily to increase the fog of war for the Nazi leadership, and specifically for Hitler.

The British used these double agents to leak credible false messages to the Nazi high command about the Allied invasion plan before and after the Normandy



Roman Czernawski (1910–1985), a Polish Air Force captain and Allied double agent during World War II, used the codename Brutus. (Photo courtesy of Wikipedia)

invasion. They communicated prior to the invasion at Normandy that there would be several diversionary attacks, but the main attack would be in Pas-de-Calais. 10 After the landing at Normandy, they continued to reiterate through controlled leaks that the main assault was still yet to come. The Nazis believed this information to be credible because of the careful controls that the British implemented. The Allies had run their spy operations so effectively that they were not only able to spread credible disinformation from within the Nazis' own spy organization, but they were also able to gain valuable intelligence on the success of the deception.



The Allies' successful execution of spy operations proved critical to the success of the deception. Any failure of their counterintelligence or miscalculation of their double agents could have compromised the entire deception operation. The false information from double agents led to the Nazi regime's hesitation to commit its reserves and the decision to pull the German 15th Army back to Pas-de-Calais' defense.11 In fact, the agent Garbo's controlled leak to the Germans about massive amounts of troops still in Southern England after D-Day caused the Germans to command two Panzer divisions heading for Normandy on 10 June to return to Pas-de-Calais because of "certain information" gained, signaling a threat.¹² It was the first of three significant factors that added to the Allies' mastery of uncertainty and the successful deception; the second factor was the role of signals intelligence.

Signals intelligence. The Allies perfected the use of signals intelligence to intercept Nazi communication and spread disinformation to the Nazis. Today's Joint Publication 3-13.4, *Military Deception*, would classify this as deception through technical means.¹³ The

The reconstructed repeater station in the tunnels beneath Dover Castle. From here, coded fake radio messages were relayed across Britain to simulate the communications of the fictitious First U.S. Army Group. (Photo courtesy of English Heritage Press Office)

technical means that the Allies implemented played a critical role in increasing the Germans' fog of war while decreasing it for the Allies. Allied cryptographers successfully broke German encrypted messages, allowing them to read sensitive Nazi communication. British intelligence was reading the German Enigma cipher machine, designated as Ultra, which provided the Allies with almost perfect information. ¹⁴ Through the information gathered before the landing at Normandy, the Allies knew that Hitler expected the main force of the invasion to land with several divisions in Pas-de-Calais. This knowledge allowed the Allies to shape their deception to play into that anticipation.

Signals intelligence also decreased the fog of war for the Allies by providing them the ability to monitor the success of the deception throughout the invasion. After the initial landing in Normandy, the Allies were able to intercept communication from Hitler that stated the German leadership believed it was just a probing attack and that the main force was still coming to Pas-de-Calais. In fact, "every key German commander greeted the news of operations in Normandy as evidence of *an* invasion, not *the* invasion." This knowledge allowed the Allies to begin the Normandy invasion and follow-on operations with confidence.

In addition to decreasing their own fog of war, the Allies used technical means to spread disinformation to increase the Nazis' fog of war. They utilized false radio signals to make fictitious army units more believable. This radio traffic allowed the Nazis to locate and attempt to analyze these fictitious Army units. The Allied deception plan undertook many tasks to increase the realism of the fictitious units. These false radio signals contributed to the Nazis' incorrect estimates of Allied force numbers and force locations, and the source of those radio signals in Southeast England reinforced the German notion that the main landing had to occur in Pas-de-Calais because of their location directly across the English Channel.

The Nazi belief in fictitious Allied army units played a significant role in the deception. In order to make a planned landing at Pas-de-Calais believable, the Nazis had to believe that the Allied strength was much greater than it actually was. The Nazi belief in large numbers of Allied troops that were not there created a credible Allied threat of several diversionary landings before the main assault on Pas-de-Calais. Overall, the Allied use of signals intelligence played a significant role in increasing Nazi uncertainty by reinforcing fictitious units with real radio traffic.

The Allies' successful use of spies and signals intelligence both show how critical reliable and relevant intelligence is in any military operation and even more so for a deception operation. T. L. Cubbage argues that the value of reliable intelligence is the real lesson from Operation Fortitude South. He said, "Without very good intelligence properly analyzed, one can never defend against deception or avoid surprise. Surprise is not a free good. It has to be bought and paid for with a proper deception plan that is grounded on reliable intelligence about what one's adversary is thinking." U.S. military planners should consider this lesson when resources are constrained and they need to balance intelligence assets

with combat units. Sometimes accurate and relevant intelligence can be a real force multiplier. The final significant aspect that allowed the Allies to master uncertainty was the use of physical deception measures.

Physical deception. The Allies competently utilized physical deception measures throughout the operation to increase the Nazis' fog of war. In addition to using technical means, the Allies used physical means to make the Nazis believe that the Allies had more divisions ready for additional landings. To assist with this task, the Allies created an entire fictitious army called the First United States Army Group (FUSAG), which they led the Germans to believe was preparing to invade Pasde-Calais. They executed this by directing the physical deception at aerial surveillance and any potential spies.

This notional army consisted of fake military equipment and personnel that could be seen by Nazi aerial surveillance. JP 3-13.4 identifies "dummy and decoy equipment and devices" as a physical means for MILDEC.¹⁸ The Allies' actions aligned with this physical means by utilizing blow-up tanks, fake aircraft, and landing craft made of wood and canvas that Nazi aircraft could see. 19 They also constructed roads that appeared to be heading to ammo storages in the woods, and at night, they used lights on carts to simulate planes taking off.20 On top of deception directed at aerial surveillance, the Allies utilized administrative deception means to target ground surveillance with the creation of unit patches and uniforms. These patches and uniforms gave any potential Nazi spies on the ground no reason to believe that the unit was fake. They also targeted open-source intelligence by placing real people in charge of these notional units. Gen. George Patton, a U.S. leader well known to the Nazis, was placed as commander of the FUSAG.²¹ German counterparts regarded Patton as a "daring and offensively minded commander, indeed the Allies' best, who would surely lead the main Allied assault on Europe."22 Patton had just defeated the Nazis in North Africa and was feared and respected by the Nazi leadership. The Allies' use of this specific person to command targeted the Nazi leadership's susceptibility to believe in the deception.

The placement of the FUSAG near the Pas-de-Calais region played into the Nazi notion that it was the intended point of attack. The development of physical deception means to support the notion of FUSAG caused the Nazis to build up Pas-de-Calais heavily, and as a result, weaken the defenses around other areas. The combination of these deception techniques resulted in significantly misplaced German war estimates. German staffs believed that Allies had sixty-five combat-ready divisions and could successfully launch a landing on a twenty-five-division front.²³ In actuality, the Allies only had twenty-nine divisions assigned to

the Overlord plan and landed at Normandy on a five-division front.²⁴ The falsely high estimate of forces and the reinforcement of the Allies' deception through multiple means directly played into Hitler's decision not to commit his reserves at the initial Normandy landing.

Nazi Susceptibility to Deception

Although it appears evident that the Allies were successful in

this deception because of their own competence, others may argue that Operation Fortitude South was effective because of unique political and military institutions in the Nazi regime. They would likely point out that the German institutions were not able to overcome the uncertainty caused by attempting to defend all of Europe without enough additional forces. In addition to a lack of forces contributing to the likelihood of a successful deception operation, Craig Bickwell argues that the success of deception operations can often be overstated by those who undertook it, so it may be hard to measure the success of the operation accurately.²⁵ One can argue that the Germans would not have been able to defeat the Normandy landing or gain the information needed regarding the location of the invasion either way because of the weak Nazi military disposition locally and systemically. Analyzing the German military in these two aspects can provide evidence that supports that the Nazis were set up for failure.

The Nazi military disposition locally was poorly set up to both identify the landing and repel the landing with a suitable force. The German force disposition was a result of a compromise between conflicting ideologies of two prominent Nazi generals, Field Marshal Rommel and Field Marshal Karl Rudolf Gerd von Rundstedt. Rommel desired to repel any potential landing at the beach and advocated for prepositioning German forces



An inflatable "dummy" M4 Sherman tank circa January 1944 of the type used in concentrated areas to deceive the German leadership that the invasion of Europe would be directed at the narrow crossing from England to Calais, France. (Photo courtesy of U.S. Army/Wikimedia Commons)

along the coast. In contrast, Rundstedt wanted to maintain a reserve of armored forces to repel the Allies after the location of the attack had been identified.26 The resulting compromise from this disagreement placed some German forces on the coast while keeping a small reserve in the western theater under direct control of Hitler. This compromise caused the Nazis to be susceptible to attack by not having sufficient forces

on the coast to repel an invasion and having too small of a reserve force to make a difference. Also, the Nazis built up the majority of the local forces around major ports, which left gaps for the Allies to exploit.

The Nazi military disposition systemically was weak and overextended, causing them not to have a suitable force in western Europe to repel the landing. In 1944, the Germans were spread thin militarily due to troop investments in fronts in Italy and Russia. The Germans simply did not have enough forces to fight the potential invasion because they were defending too much land with too few people and equipment. Sun Tzu recognized the problem of spreading forces out when he said, "If he sends reinforcements everywhere, he will everywhere be weak." The Germans had taken massive losses on their eastern front, which had an impact on both the quantity and quality of the troops brought to defend the western front. Those German divisions were second rate and filled with many foreign



personnel with questionable loyalties.²⁸ The Germans were reliant on heavy artillery and weak divisions. The heavy artillery was placed around ports and built up around defenses, and was therefore not mobile or reactive to the Allies' landing in a different location. Losses and requirements on other fronts also caused the Germans to have a shortage of aircraft and naval vessels. All the troop limitations indicate that the Germans were susceptible to defeat on D-Day regardless of the Allies' deception.

The German overextension allowed the Allies to have air and naval superiority for the landing and to go up against second-rate troops. The air and maritime superiority of the Allies proved critical in several key areas. First, it reduced the Nazi ability to maneuver and respond with armor that was in the region. Second, it limited Nazi surveillance flights, which could have identified the immense force build-up for the invasion.²⁹ Third, lack of forward naval and air assets to account for weather patterns caused the Nazis to miscalculate possible weather conditions and therefore discount the possibility of an invasion.³⁰ These three combinations,

Dummy landing craft used as decoys 1 January 1944 in southeastern England's harbors before D-Day. (Photo courtesy of the Imperial War Museum)

which were a result of Nazi weaknesses and not successful Allied deception efforts, contributed to the miscalculation by the Nazi leadership.

One can also argue that while the deception operation was one factor in the German focus on Pas-de-Calais, the Germans were simply using military logic in response to a lack of reliable information from intelligence sources. Rundstedt stated his reasons for believing the landing would come in Pas-de-Calais:

In the first place an attack from Dover against Calais would be using the shortest sea route to the continent. Secondly, the V-1 and V-2 [rocket] sites were located in this area. Thirdly, this was the shortest route to the Ruhr and the heart of industrial Germany. Fourthly, such an operation would sever the forces in Northern

France from those along the Mediterranean coast. I always used to tell my staff that if I was Montgomery I would attack the Pas-de-Calais.31

Available sea port facilities, increased flight time over the battlefield for air support, and shorter logistic lines were also factors that led the German leadership to believe Pas-de-Calais was the most logical place for the attack. The Germans did, however, move

signals intelligence, and physical deception was information that the Nazis wanted to hear. The Germans had the majority of their defenses built up around this area, so it was not a surprise when they saw all of the disinformation pointing to that location for the invasion.

The Allies also used innovation to enable the choice of Normandy as the actual landing spot. Innovation, although not a deception technique in the joint publication, can be an enabler in deception operations. New



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some forces to Normandy in May, but it was simply not the most reinforced area of the coast. This makes it difficult to judge whether the success of Operation Fortitude South was a success because of the Allies' efforts or because of the failures of Nazi intelligence.

Why Success Was No Accident

Although the Nazi regime had unique institutions that contributed to the operation's success, the Allies' planning and execution of various deception techniques were more impactful to the success at Normandy because German weaknesses were discovered and exploited. Sun Tzu suggested to "know your enemy and know yourself."32 The Allies exemplified this knowledge by exploiting the Nazi weaknesses in the right locations. The Allies specifically learned about and targeted Hitler in their deception scheme. They also utilized innovation and outside-the-box thinking to enable them to choose the actual assault to be in an area the Nazis were not expecting.

The Allies chose a deception based on an idea that they knew Hitler both feared and wanted to believe. The Germans were convinced that an invasion was coming to Pas-de-Calais because that is where they had a preconceived idea of the landing. The Allies' choice of trying to mislead the Nazis into an invasion at Pas-de-Calais successfully played into the Germans' existing fears and expectations that that region was at risk.³³ In other words, the intelligence spread by the double agents, technology can open opportunities previously unavailable to traditional thinking. The Nazis built their defenses around ports with the assumption that the Allies needed a port to supply a large number of forces after the main landing.³⁴ The Allies instead built two temporary harbors and supply means at Normandy. They utilized large breakwaters built in British ports and sunk off the coast of France. These breakwaters, referred to as "Mulberries," temporarily allowed the Allies to use floating docks for port-like resupply operations.³⁵ In addition to their innovation with Mulberries, the Allies laid a fuel line from England to Normandy in order to pump fuel to the army on the beach.³⁶ Both of these developments were out-of-the-box innovations that allowed the Allies to choose their landing in a location that the Germans would not think realistic for the main invasion force. The innovation used to overcome these logistical issues enabled the Allies to further develop the deception, which pointed the Germans to the believable locations surrounding ports.

Conclusion

The Allies succeeded in Operation Fortitude South because they mastered uncertainty, created unique innovations, and targeted the Nazis' preconceived fears in their deception approach. With the successful implementation of spies, signals intelligence, and physical deception combined with deception pointing the enemy in a direction that it already wanted to believe, any actor could have been deceived. Operation Fortitude South is a particularly important reminder of the importance of intelligence in MILDEC. Deception is difficult, if not impossible, without reliable information regarding a target. Although Nazi institutions created weaknesses, sound Allied deception strategies and techniques were able to exploit it. The Allies' successful planning and execution of deception along with innovation and outside-the-box thinking are the principal reasons for the success of Operation Fortitude South.

With the renewal of focus on near-peer threats such as China and Russia, U.S. military planners at the operational level must remember the incredible importance of MILDEC. Successful planning and execution of MILDEC could save lives and tip the balance in a conventional fight. Even if we all hope that conventional conflict will not come, we must plan and prepare as if it will. Planning and preparation for MILDEC is one small but critical component that the United States should plan and prepare for.

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