

*Remembering*  
**D-DAY**

# *The Tricks That Won the War*

England's Bletchley Park, Den of the Code-Breakers and Illusion-Makers

TUESDAY, MAY 31, 1994



By Ken Ringle  
Washington Post Staff Writer

*The King hath note of all that they intend,  
By interceptions which they know not of.*

Henry V, Act 2, Scene 2

### BLETCHLEY, England

**S**hakespeare was writing about another invasion of France, of course, but his words, inscribed on a plaque in the oak-paneled manor house at Bletchley Park, tell as much about what really happened 50 years ago June 6 as all the tales of blood and valor on the beaches of Normandy.

For what is still far too rarely appreciated, even half a century later, is how much the climactic battle of World War II was fought and won in the shadowland of stealth and deception. It was a victory achieved in no small part by an anonymous army of toymakers, scenery painters, illusionists and purveyors of electronic make-believe, all guided by a legion of cryptographic skulkers so secretive that their work is still not fully known.

The de facto headquarters of this looking glass war lay here 46 miles north of London on the 55-acre, still barbed-wire-rimmed remnant of a once-grand Victorian estate.

Here, in a series of drafty frame huts and dank concrete bunkers shaded by huge flowering chestnut trees, some 7,000 people labored feverishly on the eve of D-Day to secure the invasion of Hitler's Europe by first invading and manipulating Hitler's mind.

So successful were they at skewing his version of reality that even as the largest invasion fleet in history hove into sight off Nor-

See BLETCHLEY, Pa, Col. 1

At this estate near London, an anonymous army of 7,000 worked to confuse Hitler and his forces just before the secret D-Day attack.

REUTERS FOR THE WASHINGTON POST

## BLETCHLEY, From B1

mandy, the crucial strength of the German war machine was occupied elsewhere, ambushing imaginary armies, bombarding invisible fleets and repelling thousands of three-foot-tall paratroopers made of straw.

"If you ask me were the deceptions effective, I would say they were absolutely vital on D-Day," says military historian M.R.D. Foot, a slim, silver-haired septuagenarian who spent the war staging commando raids for the British Army. "We would have been mad to attempt the invasion without them, precisely because Hitler had so many more divisions in France than we could land quickly. Had he been able to mass them to meet us, we would have been finished. And it was a near enough thing as it was."

But goaded by psychological feints at other corners of his empire, Hitler ignored an ageless maxim of military strategy: Try to be strong everywhere and you're not strong anywhere.

Alerted by hundreds of landing craft spotted in the lochs of Scotland, 16 divisions of German troops (Hitler had only seven in Normandy), stood poised across the North Sea awaiting an imminent invasion of Norway. The Scottish landing craft were plywood stage props, the Norwegian invasion a myth.

Alarmed by aerial reconnaissance showing hundreds of troop encampments and tank divisions in southeast England, Hitler held six armored divisions and 19 other divisions north of the Seine to meet the Allied landing that was certain to come between Dunkirk and Dieppe at the narrowest part of the English Channel in the Pas de Calais. The tents in England were empty, the tanks made of wood.

Other German divisions garrisoned southern France in response to an appearance in Gibraltar by an actor disguised as British Field Marshal Bernard Montgomery.

In the pre-dawn June 6 darkness northeast of Normandy between LeHavre and Boulogne, fleets of small launches trailing radar-reflecting balloons pitched and rolled their way toward shore while above them two squadrons of Royal Air Force bombers loosed a specially designed pattern of aluminum chaff and electronic signals designed to appear on German radar as a huge fleet of warships. Ten miles offshore, screened by banks of smoke, the launch crews switched on sound amplifiers, touching off the rattling of anchor chains, the squeal of steam derricks lowering heavy objects and the thump of landing craft banging the sides of transports.

They were all illusions, only a few among thousands in a strategy of deception as old as the Trojan horse, and often imbued with what one historian referred to as "the Monty Python element."

But as captured Wehrmacht documents would later show, it was tremendously effective. It hopelessly confused the Germans and forced them to reserve or divert armored units that, properly positioned, would have blown the Allied landings off the map. Still, as Foot and others emphasize, the deceptions would have

been useless without the work at Bletchley Park, where a bizarre band of eccentric geniuses had broken the German codes in the war's earliest years and had been reading Germany's most secret radio traffic ever since.

"What you have to remember about deceptions," says F.H. Hinsley, the Cambridge professor who authored the official history of British intelligence in World War II, "is that if they're to be successful, two things are imperative: First, the enemy must be kept totally in the dark about what you don't want him to know, and second, you must know everything he's thinking all the time, especially when he's confronted with what you want him to believe."

Thanks to Bletchley's early and long-secret penetration of German radio traffic, Hinsley says, "we were able to locate, early on, the entire German espionage network in Britain, elim-

inate parts of it and use others to feed Hitler disinformation. We were also able to learn Hitler's thinking about where and when the invasion would eventually come, play to his prejudices and hunches, and learn when and whether he took our bait. We were reading his mind all the time."

## Stranger Than Fiction

In the nearly 20 years since F.W. Winterbotham's book "The Ultra Secret" first made public the extent of Allied code-breaking in World War II, much has been written about Bletchley Park and its cast of code-cracking irregulars: the sputtering Oxford dons, neurasathenic chess champions and rumpled, unwashed linguists recruited to attack and analyze the Germans' supposedly impenetrable Enigma cipher.

What novelist, after all, could dream up a cryptographic protagonist like Alan Turing, the stammering, nail-biting mathematical genius and computer pioneer, who bicycled in a gas mask to avoid hay fever, ran long distances in tweeds, listened nightly to a BBC children's program about Larry the Lamb and, nine years after the war, killed himself by coating an apple with cyanide and biting into it?

It was Turing, building on cryptanalytic breakthroughs made before the war by a band of brilliant Polish mathematicians, who led the

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—author F.H. Hinsley

frenzied intellectual scramble at Bletchley Park, aided by several thousand tireless young female clerks and the army of abstract academics one clerk remembers as "just absolute boffins.... They just weren't in the real world at all."

Their work consisted of three basic areas. First, it involved the technical challenge of engineering what became the first electronic programmable computers, not only to solve the increasing number and complexity of German ciphers, but to greatly reduce the time for decoding individual messages.

Second, it involved meticulous analysis of the messages themselves, not only for the subtleties of linguistic translation but, in light of what was already known of the sender and receiver, their branches of service, their present tactical situations and so on.

Finally it involved the dissemination of this "Ultra" secret information to specific commanders on a need-to-know basis, through the small number of liaison intelligence officers cleared for Ultra security.

In the early days of the war, with many ciphers still unbroken and many messages read only days later, largely for strategic value, these tasks absorbed the labors of only a few hundred people. But as the code-breaking process was perfected, and its machinery multiplied, so did Bletchley's manpower needs. By D-Day, some 6,000 clerks and 1,000 "boffins" had overflowed the estate's dozens of prefabricated wooden huts and bombproof bunkers in-

to auxiliary stations in nearby country houses and the London suburbs.

Nearly one-fifth of the workers arrived in the final few months before the invasion, as the code-breakers geared up for the blizzard of messages anticipated as the destruction of German land lines would force more and more Wehrmacht communiques onto the airwaves, and as the code-breakers raced to read them in time to give them tactical value.

The speed was most needed to trace the moment-by-moment movement of German army units, particularly armored units, in the first hours and days of the invasion. Would Hitler sniff out what was really happening on the beaches of Normandy and move to crush it? Or would he remain the psychological prisoner of the deception artists of the Allied cause?

### **Wavell's Warriors**

The Allied deceptions of D-Day were born from a wedding of desperation and guile and were incomparably British from the start.

Many writers credit them to the country's horrific losses in World War I and England's subsequent desperate search for military measures other than the suicidal frontal assault.

But Foot notes as well a rich tradition of deception throughout British history, dating at least to William the Conqueror, who in 1066 had Viking allies stage a diversionary raid on Yorkshire so he could land in Sussex from Normandy almost unopposed.

At the beginning of World War II, says Hinsley, "we simply had no alternative but deception. We were so weak we had either to outsmart the enemy or be defeated."

Thus in the darkest days of 1940, a tiny British force under Gen. Archibald Wavell literally inflated its strength with blow-up dummy tanks and artillery, and outwitted an enormous Italian army in Libya, capturing 130,000 prisoners.

It was nothing particularly new for Wavell. He had once been part of a World War I operation in Palestine that captured Beersheba from the Turks by showering the tobacco-starved enemy from the air with opium-laced cigarettes and then walking to victory across their sleeping forms.

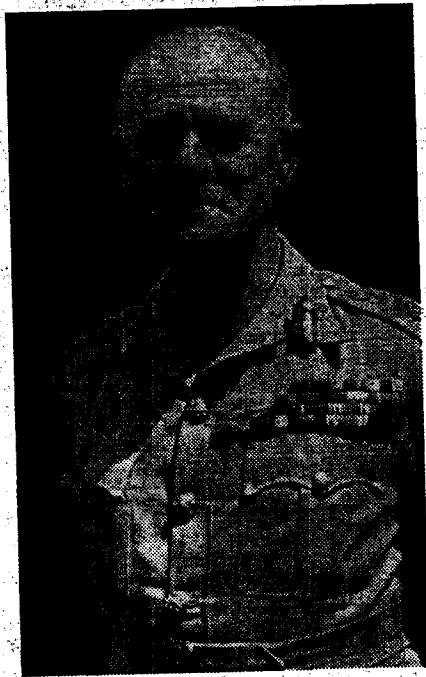
Wavell's Libyan success prompted a memo in which he argued convincingly for a new concept of deception—a highly clandestine central clearinghouse for all Allied deception plans, the London Controlling Section (LCS), keyed to orchestrating them into a single grand strategy. From that beginning, fueled by the technical and analytical breakthroughs at Bletchley Park, grew "Operation Bodyguard," the myriad deceptions that ultimately ensured the D-Day landings.

Month by month, as U.S. and Canadian armies

poured on snips in Britain for the long buildup to Operation Overlord, the LCS inflated Hitler's picture of the number that came ashore. For every dozen regiments that disembarked, British-controlled Nazi agents would add one or two in their reports to Hitler. For every division of armor, Hitler would hear through diplomatic circles there were more.

By May, Ultra intercepts showed German intelligence credited the Allies with having nearly double the 49 divisions they actually had in England. Most of the imaginary units, augmented by real units in other areas, were eventually united into the largest single deception of Operation Overlord, the 900,000-man First U.S. Army Group (FUSAG). Its purported leader was the one general who—Bletchley intercepts showed—Hitler feared more than any other: George S. Patton.

Patton's army, headquartered in Kent, just across from Calais, was more than just a rumor. Its regimental names appeared in newspaper wedding and social announcements and even the occasional obituary. German wireless operators picked up radio transmissions from its jeep and tank drivers. Radio disc jockeys dedicated big-band numbers to it from regi-



**British Gen. Archibald Wavell, who led the Allied war of deception leading up to D-Day.**

mental girlfriends. Mythical divisions were described right down to their mythical shoulder patches.

The whole FUSAG, Hitler learned from a

variety of sources, was destined to hit the beaches of France at the closest point to Germany's vital industrial heartland, the very spot Bletchley intercepts had shown Hitler betting on all along: the Pas de Calais.

The timing was still uncertain, German troops were told by Berlin. Maybe July. Any landing anywhere else before that would probably be just a feint.

### **Toy Weapons, Real War**

Several weeks before D-Day, Foot, an intelligence officer with the British Army's Special Air Services Brigade, was ordered by his commanding officer to prepare a deception of his own.

"I was told the order had come down to parachute two groups of men into Normandy," he remembers. "They would be armed with light pistols and gramophones."

The men—two officers, two sergeants and six enlisted men in each group—would all be volunteers. One group would be dropped between Le Havre and Rouen, the other behind Omaha Beach southeast of the village of Issigny-sur-Mer. They were part of the sound effects crew for "Operation Titanic."

Titanic involved the dropping of thousands of dummy parachutists in advance of the real airborne drops of D-Day.

"The dummies were about three feet tall, but fully uniformed and fashioned quite to half-scale," Foot says. "In searchlights they looked exactly like real paratroopers." They were made of straw by professional toymakers ("there was a shortage of toys during the war because the toymakers were so occupied with deceptions") and were designed to explode on impact. "But in practice it had been discovered that they didn't always explode. Hence the need for more sound effects."

Foot's gramophonists were to be dropped in advance of the dummy paratroopers, so the doll landings would trigger the sounds of rifle fire, the rattle of machine guns, the crump of mortar explosions, shouted orders and even a snatch of properly British profanity. The recorded battle was to last about 30 minutes. Then the sound effects men were to hide themselves until the invasion caught up with them.

By most conventional measures, the airborne operations on D-Day were a disaster. The weather was marginal for jumping and many planes lost their way. Others were piloted by novices who panicked when they en-

countered flak and dropped their jumpers far off course. Many troops landed in flooded fields and drowned, and some landed in the English Channel. But with parachutes coming down everywhere, some real, some dummy, the mobile German units called out to deal with the attack were hopelessly confused about which to pursue. Command centers fielding numerous reports of landings were unable to deduce a pattern to the Allied attack.

The chaos was furthered by the French underground, which, in accordance with long-standing LCS plans, began severing telephone cables, exploding junction boxes and dynamiting poles. Which in turn forced the confounded Germans onto the radio waves, where their frustration could be heard and savored in Bletchley Park.

All the chasing around after parachutists distracted the Germans into thinking their quarry was inland. Few noticed that the previously invasion-proof weather had suddenly improved. No one thought to look for what was advancing on them—from the sea.

### **The Ghosts of Bletchley**

One enters a time warp on visiting Bletchley Park these days. The estate is owned jointly by the British government and British Telecom, the once government-owned, now privatized telephone company, and for the past 50 years only a fraction of the buildings have been used, primarily as a place to train postal workers and air traffic controllers.

The clock on the manor house has been stopped since anyone can remember. The bunkers and huts that sifted Enigma and other ciphers wear the aura of timeless and banal utility that once cloaked the same sort of WWII buildings on the Washington Mall. To all intents and purposes the whole place appears frozen in 1945.

Three years ago, plans surfaced to level Bletchley Park to make room for housing and industry. The plans prompted a small but fervent protest and the formation of a small but energetic historical trust that now holds regu-

lar open-house weekends here where visitors can view code-breaking machines, pace the empty, mildewed bunkers and learn something of the profound and long-secret history of the place.

Most of the boffins are long dead, but reunion efforts have turned up several hundred of the "Bletchley girls," who trade stories of the long hours and low pay and primitive conditions they endured for the sake of work that they understood with fierce pride was literally a matter of life and death for their nation.

Some bring along husbands who after half a century are astonished to finally discover what Mum did in the war.

Why didn't the women ever talk? Foot smiles thinly. "One didn't," he says. Secrecy in Bletchley Park was so ingrained that a worker in one hut had no idea what those in another hut were doing, and knew better than to ask.

It's hard for a visitor now to get any indication of what work went on in any location, or to know where or when Bletchleyites realized Hitler had waited too long to move his armor from the Pas de Calais and they had won the game. There is no record, here at least, of how long after D-Day that Hitler realized he'd been played repeatedly for a fool, or if he ever admitted to himself how often he had lunged at illusions other than his own.

In the end he shot himself, the war ended, and the engineers of code-breaking and deception moved on to practice their trades in other spheres.

But over the years some Germans, even some who fought during World War II, have come to appreciate and even value what happened here. Hans Meckel, who as a signal officer for the Kriegsmarine high command was one of those duped by the boffins, has estimated that the intelligence victories here shortened the war by at least three years. All Germans should be grateful for that, he says: Without the boffins of Bletchley Park, the first atom bomb would have fallen not on Hiroshima, but on Berlin.