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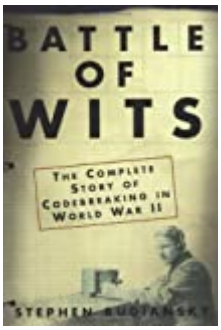

Stephen Budiansky. *Battle of Wits: The Complete Story of Codebreaking in World War II.* New York: The Free Press, 2000. 436 pp. $27.50 (cloth), ISBN 978-0-684-85932-3.

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Intelligence is no longer, as the noted British diplomat Sir Alexander Cadogan asserted after the Second World War, the "missing dimension" to international history. In recent years intelligence history has blossomed into a lively sub-field with specialist journals,[1] national and international professional associations,[2] special lists at academic presses,[3] and an electronic discussion forum.[4] Encouraged by the steady, if rather gradual, declassification of intelligence records, historians have been increasingly inclined to investigate the role of intelligence and intelligence services in the formation and implementation of political, military, and economic policies. These investigations are enriching and in many cases changing our understanding of personalities, events and decision-making processes.[5]

Intelligence history is a many-chambered mansion, and historians exploring that property have long been aware that communications intelligence (COMINT–information derived from the interception and decryption of the messages of governments, private organizations, and individuals) occupies one of the darkest and least accessible rooms. Of course bits and pieces of communications intelligence lore have surfaced to become fixtures in the diplomatic history of the twentieth century. Can any survey of the First World War avoid the Zimmermann Telegram? Can any account of the road to Pearl Harbor fail to mention Magic? Has any student of World War II not heard of the Enigma cipher machine?

These glimpses of communications intelligence at work suggested the presence of a significant force in the diplomatic and military history of the century, but the contours and attributes of that force remained obscure. Historians of the Second World War, for example, knew that COMINT had played a role in such events as the campaign against the U-boats or the Battle of Midway, but they could not determine if such successes were the exception or the rule, and they could only dimly perceive the organizational structures and processes that produced such important intelligence.

Any attempt to clarify the scope, nature, and consequences of communications intelligence was seriously constrained by the reluctance of London and Washington (to say nothing of other capitals) to release anything more than a trickle of information about their COMINT operations even if some of those operations dated back to the First World War. The situation changed dramatically in 1996 when the National Security Agency declassified and released to the National Archives some 1.3 million pages of communications intelligence materials from the period 1914-1945. With parallel, though less extensive, releases to the Public Record Office by NSA's opposite number in the United Kingdom, the Government

Communications Headquarters, historians now have the documentary base for a comprehensive appraisal of the role of communications intelligence in the first half of the twentieth century.

Stephen Budiansky is one of the first historians to investigate the new materials and the result is the best survey to date of the role of communications intelligence in the defeat of the Axis in World War II. It is a great story with enough colorful characters and dramatic moments to fill a dozen thrillers: Commander Joseph Rochefort, in smoking jacket and carpet slippers, leading the navy codebreakers at "Station Hypo" in Hawaii against the Japanese fleet cipher, JN25; the young mathematician, Marian Rejewski, working alone and after hours in the Polish Cipher Bureau to achieve the first break into the Enigma cipher machine; U.S. Navy COMINT personnel, escaping Corregidor by submarine, enduring hours of depth charge attacks rather than compromise COMINT secrets by warning the sub skipper that he was sailing toward a Japanese fleet concentration they had pinpointed before their emergency departure; U.S. Army codebreakers, working only from intercepted messages, building an analog of Japan's "Purple" cipher machine even though they had never seen the actual machine; Admiral Chester Nimitz accepting the advice of his COMINT staff that Midway Island, not Hawaii or the Aleutians, was the target of the Japanese naval striking force that sailed east across the Pacific in the spring of 1942; the British Admiralty's Operational Intelligence Center in the darkest hours of the Battle of the Atlantic politely suggesting to the codebreakers at Bletchley Park that perhaps they might pay "a little more attention" to Shark, the Enigma variation used by the German U-boats then decimating the Atlantic convoys.

Battle of Wits, however, moves beyond good anecdotes and great victories to make important contributions to our understanding of the role of wartime communications intelligence. Budiansky demonstrates that for all the Marian Rejewski's, Alan Turing's, and Joseph Rochefort's, the story of Allied communications intelligence in the Second World War is the story of mass production replacing individual genius in a veritable intelligence industrial revolution. By the end of the war the Americans and the British had built COMINT bureaucracies that employed tens of thousands of codebreakers, clerks, translators, intercept operators, analysts, machinists, and electricians, occupied dozens of stations and facilities around the globe, deployed the latest technology, and intercepted and processed hundreds of thousands of messages a month. The old "Black Chambers" where a handful of eccentrics sat in a back room counting letter frequencies or reclined in their baths working out elusive cipher keys disappeared forever in a transition that shifted the COMINT advantage to countries, such as the United States, that could mobilize significant technical, financial, and organizational resources.

Budiansky also describes the rivalries and feuds that were the dirty little secrets of the Allied codebreaking effort. Communications intelligence was a powerful resource and control of its machinery and credit for its successes were prizes worth a fight. And so there were fights: Americans against the British, Army against the Navy, headquarters against field stations. Some of these conflicts, such as the competition between naval cryptanalysts in Washington and Hawaii for credit after the Battle of Midway, were sad but ultimately banal, while others, such as the Anglo-American struggle over the processing of Enigma traffic, promised to disrupt wartime intelligence collaboration and foreshadowed future tensions as the intelligence advantage shifted westward across the Atlantic. Budiansky is always a judicious guide through these bureaucratic thickets.

Perhaps the author's greatest contribution is to add a powerful voice to the small but growing chorus challenging the "Ultra Myth." Because, until recently, relatively little was known about communications intelligence in the Second World War and that little was concerned almost exclusively with major codebreaking successes, historians (to say nothing of the broader reading public) have come to consider communications intelligence THE intelligence achievement of the war and a major if not principal determinant of Allied victory over the Axis. Indeed, some writers perceive communications intelligence informing all wartime decisions, at least after 1941.[6]

Budiansky does not share the simplistic assumption that communications intelligence must have given decision makers a comprehensive view of wartime diplomatic and military affairs and that decrypts consistently guided these men in their decisions, an assumption that seriously distorts the contributions of wartime COMINT. The breathless discussion of Ultra and Magic and the very real achievements against Purple and Enigma often obscure the fact that communications intelligence was only one of several sources that informed (or misinformed) decision-makers during the war. Recently intelligence historians have become increasingly interested in the extent to which other sources, such as aerial reconnaissance and the interrogation of prisoners, generated important information in their own right.[7] By reminding

themselves that intelligence is only one ingredient in the recipe for military success, historians are also coming to a more nuanced appraisal of the role of communications intelligence in events, such as the campaign against the U-boats, that have long been considered the greatest achievements of the codebreaking war.[8]

COMINT coverage was never comprehensive. The notable successes against Purple and Enigma obscure the fact that many important targets resisted cryptanalytic attack and that there were always blank areas on the communications intelligence map. Budiansky reminds us that, in the weeks preceding the attack on Pearl Harbor, neither American nor British codebreakers were able to read the latest version of JN25, the general fleet cipher of the Imperial Japanese Navy, and that not a single JN25 message transmitted at any time during 1941 was read before December 7. He also points out that despite the best efforts of American and British codebreakers no significant Japanese Army communications were readable until the spring of 1943 when the so-called Water Transport Code was broken.

Though his focus is primarily on the military sphere, the author is aware that the situation was just as problematic in the diplomatic arena. He notes, for example, that the high-grade cipher of the German foreign ministry was not readable until February 1945, only a few months before Germany's surrender. If he had wanted to, he could have generated any number of examples to demonstrate that COMINT was not a predictably reliable resource for policy makers and that Allied cryptanalysts did not march relentlessly from success to success. Between February 1939 (when Tokyo introduced the Purple cipher machine) and September 1940 (when U.S. Army cryptanalysts solved that machine) American intelligence could not read the high-grade diplomatic traffic of any country in the world except (toward the end of that period) Mexico. What with the Nazi-Soviet Pact, the outbreak of the Second World War, the invasion and capitulation of France, and any number of other distractions in Europe and the Pacific, this was a rather challenging period for American diplomacy, but if Franklin Roosevelt had asked to see the latest German or Italian decrypts he would have received a slim file of low-grade consular and administrative messages announcing the routine transfer of diplomatic personnel or transmitting expense reports for the most recent quarter. Similar problems persisted throughout the war. Allied cryptanalysts broke into Free French ciphers only in 1944, too late to influence policy toward de Gaulle in the critical period 1942-43. Some targets never cracked. The Allies simply gave up on Vatican ciphers and they made little progress against other systems, such as Swedish and Norwegian diplomatic ciphers. There were no Russian or British decrypts to help Roosevelt at Yalta or Truman at Potsdam, though the lack (at least in the case of the Russians) was not for want of trying.

Recent scholarship has demonstrated that any number of factors (bureaucratic, technical, psychological) combined to influence the impact of communications intelligence on wartime decision-making.[9] Budiansky is clearly aware that an item of important intelligence is not influential merely because it exists and that the intelligence process influences the intelligence product. His good book would have been even better, however, if he had told us more about the administrative (as opposed to cryptanalytic) side of the COMINT process. How were COMINT priorities determined? How and in what form were decrypts distributed? Who received them and who actually read them? Were there any biases in the selection of decrypts for distribution? The answers to such questions are elusive, but not impossible to fix.

Engagingly written and carefully researched, Battle of Wits will become the standard survey of Anglo-American codebreaking in World War II. It deserves to be read by anyone interested in the history of intelligence or the history of the Second World War.

Notes

[1]. Intelligence and National Security, The International Journal of Intelligence and Counterintelligence, and the unclassified version of Studies in Intelligence (published by the history office of the Central Intelligence Agency) are devoted exclusively to intelligence studies. Cryptologia publishes articles in the more specialized area of communications intelligence and codebreaking.

[2]. Among the more active groups are the International Intelligence History Study Group, the Canadian Association for Security and Intelligence Studies, the Netherlands Intelligence Studies Association, and the Intelligence Studies Group of the International Studies Association.

[3]. The University Press of Kansas, Greenwood Publishers, and Frank Cass and Company (London) have separate series in intelligence history.

[4]. Intelligence Forum (Intelforum), a moderated discussion list, has developed into a lively arena for the discussion of intelligence topics by academics, journal-

ists, and professionals.

[5] .A sample of such investigations from the last two years alone would include Richard Aldrich, Intelligence and the War Against Japan: Britain, America and the Politics of Secret Service (Cambridge: Cambridge University Press, 2000); Richard Breitman Official Secrets: What the Nazis Planned, What the British and Americans Knew (New York: Hill and Wang, 1998); Peter Jackson, France and the Nazi Menace: Intelligence and Policy Making, 1933-1939 (Oxford: Oxford University Press, 2000); David Rudgers, Creating the Secret State: The Origins of the Central Intelligence Agency, 1943-1947 (Lawrence: University Press of Kansas, 2000); and David Stafford, Churchill and Secret Service (New York: Overlook Press, 1998).

[6]. For a particularly egregious example, see Bruce Lee, Marching Orders: The Untold Story of World War II (New York: Crown Publishers, 1995).

[7]. See, for example, Kevin Jones, "From the Horse's Mouth: Luftwaffe POWs as Sources for Air Ministry Intelligence During the Battle of Britain," Intelligence and National Security, 15 (Winter 2000): 60-80.

[8]. W.J.R. Gardner, *Decoding History: The Battle of the Atlantic and Ultra* (Annapolis: U.S. Naval Institute Press, 2000).

[9]. Robin Denniston, *Churchill's Secret War: Diplomatic Decrypts, the Foreign Office and Turkey, 1942-44* (New York: St. Martin's Press, 1997); David Alvarez, *Secret Messages: Codebreaking and American Diplomacy, 1930-1945* (Lawrence: University Press of Kansas, 2000).

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