A Guide to the History of Intelligence 1800-1918

by Douglas L. Wheeler, Ph.D.

Wisdom is better than weapons of war.

— Attributed to
Adm William Reginald "Blinker" Hall
(1870-1943), Royal Navy,
Director of Naval Intelligence, 1914-1918.

During the 19th Century, an age of industrialization, military and diplomatic intelligence evolved greatly over the course of the many armed conflicts in the West, including the Napoleonic Wars (1795-1815), the Crimean War (1854-56), the American Civil War (1861-1865), the Austro-Prussian (1866) and Franco-Prussian (1870-71) wars, many colonial wars including the Spanish-American War (1898), the Anglo-Boer War (1899-1902), and the Russo-Japanese War (1904-05). New developments affecting intelligence included technological innovations, rapid communication and transportation enabling speedier collection and dissemination of secret information; the introduction of the military attaché system in foreign countries to collect intelligence; the creation of permanent intelligence services in Western armies and navies; the creation of the first spy schools for training intelligence agents in Germany, Austria, France and Britain; as well as the introduction of the first laws penalizing leaks of military secrets to the press or the public.

THE AGE OF INDUSTRIALIZATION AND INTELLIGENCE (1800-1914)

The Duke of Wellington (1769-1852) once made a simple observation about battlefield intelligence. As the British army's field commander he wanted to know what was "on the other side of the hill." In his day, cavalry scouts, spies or messengers collected such intelligence and reported in person to the commander or to one of his key subordinates. Spies' capabilities to collect and deliver intelligence improved after 1830 with the inventions of photography, the typewriter, the telegraph, improved secret writing, superior optics for telescopes and binoculars, observation balloons, railroads and the fast steamship.

As warfare became more complex and the size of armies grew, Western armed forces developed war plans, anticipating scenarios and planning for contingencies. Intelligence services, seeking knowledge of enemy plans and intentions, were presented with a new target. Obtaining enemy war plans became a major focus.

Despite the improvements in intelligence methods, during the late 1800s most states were poorly prepared for war, and their intelligence services often were surprised. Examples include Austria in 1866 and France in 1870, both of whom were surprised by Prussia. Notable exceptions, however, were Prussia, whose military intelligence in the Austro-Prussian War of 1866 and in the Franco-Prussian War of 1870-71 was effective, and the Japanese whose military intelligence contributed to its stunning victory in the Russo-Japanese War, 1904-05. Contributing factors were the employment of "saturation" spying techniques and leaders who heeded what their spies discovered and acted upon it.

Industrial espionage, the theft of trade and manufacturing secrets, became more prevalent and complex. Nations competed economically. Private companies had long protected their correspondence by the use of secret writing and by keeping their employees under surveillance. The British government protected its textile industry by forbidding the immigration of textile workers. This was not entirely successful. Francis Cabot Lowell (1775-1817), a wealthy Bostonian merchant-trader-entrepreneur, was allowed to visit new textile mills in England and Scotland in 1810. Lowell admired what he saw but was unable to obtain drawings or models of the new power looms. Instead he memorized the designs of the looms, and by 1814 had engineered the first up-to-date cotton mills in Waltham, Massachusetts. After his death, the new industrial city of Lowell, Massachusetts was named in his honor. The Lowell case demonstrates those qualities a successful industrial spy required — resourcefulness, an extraordinary memory, sure knowledge of the subject at hand, and a keen attention to detail.

Industrialization, urbanization and the increase in literacy in the West prompted the development of modern mass-circulated daily newspapers. The

modern newspaper contained not only news but, at times, useful 'intelligence.' A foreshadowing of a now familiar conflict between freedom of the press and security of military information came during the Crimean War (1854-56). The British press covered the war in detail and dispatched foreign correspondents who reported from the battlefields. *The Times of London* provided readers with detailed information on the makeup, command structure, and strength of the British forces — in other words, the British order of battle. Russian officers began to read such reports from mailed copies of *The Times*. The Russian Czar was not joking entirely when he later claimed that now he had no need for spies as he only had to read *The Times*. Three decades later, in 1889, responding to another leak of military secrets to the public, the British Parliament passed its first Official Secrets Act, which penalized both the possession and the use of government information by "unauthorized persons."

In the 19th century permanent intelligence services were established among the European powers, the United States, Russia, and Japan, as shown in Figure 1.

Year	Country	Name of Service	Type of Intelligence
1804	France	Sureté	Political intelligence & counterintelligence
1850	Austro-Hungarian Empire	Evidenzbureau	Military intelligence & counterintelligence
1860	Germany	Section IIIb, General Staff	Military intelligence
1875	France	Deuxieme Bureau, Army General Staff	Military intelligence
1881	Japan	Kempei Tai	Army counterintelligence
1881	Russia	Okhrana	Political secret police
1883	United States	Office of Naval Intelligence	Navy intelligence
1885	United States	Bureau of Military Information	Army intelligence
1887	Britain	Department of Naval Intelligence	Navy intelligence
1908	United States	Bureau of Investigation	Criminal investigation (after 1917, counter-espionage)
1909	Britain	MO-6 (later MI-6)	Foreign intelligence
1911	Britain	MO-5 (later MI-5)	Counterintelligence

Figure 1. The founding of permanent intelligence services

Following the Crimean War, European powers inaugurated the military attaché system, a complement to the existing residential diplomacy, a practice the United States adopted in the 1880s. Following the theory that sharing information on armed forces among the powers would encourage peaceful mediation of international conflicts and prevent wars, army and navy officers abroad were expected to collect military information. By protocol the attaches were not supposed to spy, but in fact quite a few became involved in espionage.

Europe's most sensational spy scandal, the Dreyfus case, which lasted from 1894 to 1906, originated with the German military attaché in Paris. Colonel Max Von Schwarzkoppen, hired spies to acquire French secrets including war plans and weaponry data. After French military counter-intelligence discovered that a spy had sent a message to this attaché, they arrested Captain Alfred Dreyfus, an artillery and General Staff officer, assigned to intelligence. Dreyfus (1859-1935), an Alsatian Jew, underwent a closed military trial in which his defense counsel was denied access to the main evidence. Thus framed, Dreyfus was convicted of treason. He was to serve a life sentence in a remote French island off South America. After a long, bitter campaign carried out in the press, the courts, the barracks and the government, Dreyfus was finally acquitted and rehabilitated.

The case typified the pervasive fear of spies in an era of intensifying nationalism, economic rivalries, imperialism, arms races and militarism. The Dreyfus affair polarized French politics and strengthened the war fever, which gripped pre-1914 Europe. The Dreyfus case was also a case of anti-Semitism, a miscarriage of military justice, a military and political scandal, which polarized French politics for decades, and a case of the politicization of an ineffective intelligence service.

The Redl affair in Austria was another spy scandal involving secret war plans. Colonel Alfred Redl (1864-1913), an Austrian General Staff officer, rose to be deputy head, Austrian Army Intelligence. After 1900 he became a double agent who sold Austria's top secrets to Russia, including the identities of Austrian spies and its war plan for attacking Serbia. His principal motive was money to maintain an extravagant life-style. In 1913, Redl's treason was discovered when his successors in Austrian intelligence applied Redl's own innovative counter-intelligence surveillance methods for mail-opening. When confronted by authorities, Redl committed suicide in a Vienna hotel room. Despite Austria's efforts to keep his treason secret and to avoid a spy trial, Austrian

newspapers discovered some of the facts. The resulting scandal shook the Austrian establishment. The significance of Russia's possession of Austria's war plans may be debatable, but there is no doubt that the Redl case added to the spy scares and paranoia, which preceded World War I.

WORLD WAR I AND INTELLIGENCE (1914-1918)

The outbreak of World War I in August 1914 represented a huge strategic intelligence failure of European intelligence services. They not only failed to predict the cascading effects of treaties that dragged many European powers into the conflict, they failed to foresee the bloody trench warfare stalemate resulting from new, deadly, defensive firepower.

World War I was the first total war in which the production capabilities on the home front were as vital as the military on the battlefront. Both the Allied and Central Powers employed their intelligence services to carry out missions of sabotage and psychological warfare with the aim of undermining civilian morale on the home front along with the viability of the enemy's armies at the front. In the case of Germany it sowed revolution in Russia to eliminate an enemy. In total war, the home front constituted a new battlefront.

Two new methods for intelligence collection emerged as the result of technological advances — the use of aerial photography to discern enemy locations and activities and the interception of enemy radio messages and telegrams. Exploitation of intercepted Russian radio signals contributed to the significant German victory at Tannenberg in August 1914.

Agent operations contributed to Allied efforts on the Western front. A Belgian spy group, known as "the White Lady" and supported by British intelligence, tracked Germany troop trains en route to the front. One of its unheralded successes gave several days of warning of a massive March 1918 German offensive, which the Germans hoped would throw back the Allied armies and win the war.

The British economic blockade of Germany was supported by intelligence. Spy networks in the neutral Netherlands detected points at which Germany was breaching the blockade and provided British intelligence the information needed to plug those points through diplomatic pressure or through Royal Navy action. The blockage of Germany, which led to severe food deprivation on the home front and famine conditions by late 1918, played an important role in the eventual collapse of the German armies' will to fight, political instability in Germany, and the domestic revolution against Germany's ruling group.

The saga of the Zimmermann Telegram is a tale of British intelligence's effectiveness. On January 16, 1917 Germany's Foreign Secretary, Zimmermann, sent an encoded telegram via underwater cable to Germany's ambassador in Mexico with a bizarre proposal that if Mexico would join Germany in the war, in return it would receive German support and get back the lost territory comprising the states of Texas, Arizona and New Mexico. In the same telegram, the Germans announced that they would renew unrestricted submarine warfare against the Allies. The day the war began British naval vessels cut Germany's trans-Atlantic submarine cables. Germany was forced to use foreign telegraph cable systems for its diplomatic messages. British Admiral William Reginald ("Blinker") Hall (1870-1943), the Director of Naval Intelligence, had spies in telegraph offices in key locations and obtained copies of the Zimmerman message, which was then successfully decrypted in Room 40, the Admiralty's cryptanalytic cell. Hall understood that he had a potential bombshell. However, the British spymaster understood that if he revealed the text of the telegram Britain risked losing an invaluable source of intelligence. Furthermore, Britain risked alienating both neutral Sweden and the U.S. Instead, Hall decided to reveal the intercepted telegram to the American Embassy in London, convince the American diplomats that the text was genuine, without revealing how it was obtained. When he read the telegram President Wilson ordered the Department of State to leak it to the American newspapers. This helped shift American public opinion against Germany. The Zimmermann Telegram demonstrated how the course of a war could be changed by effective intelligence operations off the battlefield.

READINGS FOR INSTRUCTORS

There is a much larger literature on the history of intelligence from 1800 to World War I than there is for the pre-1800 eras. While a global perspective on intelligence history is lacking, the two encyclopedic works recommended in the 1500-1800 intelligence history article also remain helpful to the instructor for the later era: Richard W. Rowan, *The Story of Secret Service* (1937), for after 1800, see pp. 168-663; and David Kahn, *The Code-Breakers* (2nd ed., 1996), refer to pp. 187-350. Kahn's essay on the cryptologic story of

Services. From the Dreyfus Affair to the Gulf War (New York: Farrar, Straus, Giroux, 1995), and refer to pp. 3-114.

For intelligence aspects of Napoleonic Wars from a British perspective, see Mark Urban, *The Man Who Broke Napoleon's Codes* (New York: Harper/Collins, 2001), which studies the code-breaking of George Scovell, one of Wellington's staff officers who served in Spain. A classic article on 1861-1865 American intelligence is by the dean of American Civil War historians of intelligence, Edwin Fishel, "[Civil War Intelligence] Myths That Never Die," *International Journal of Intelligence and Counterintelligence* (Vol.2, No.1, Spring 1988), pp. 27-58. For American intelligence from 1800 to 1918, see G.P.A. O'Toole, *Honorable Treachery. A History of U.S. Intelligence, Espionage and Covert Action from the American Revolution to The CIA* (New York: Atlantic Monthly Press, 1991), see pp. 82-310.

The best single book on the Zimmermann Telegram's remains Barbara Tuchman's *The Zimmermann Telegram* (New York: Ballantine, 1958; 1966). For an enduring analysis of the intelligence assessment failures of both the Allied and Central Powers' intelligence services, see the classic pioneering study by Ernest R. May (ed.), *Knowing One's Enemies: Intelligence Assessment Before The Two World Wars* (Princeton, NJ: Princeton University Press, 1984). Refer to Part One, "The First World War," pp. 11-233.

the Zimmermann Telegram is definitive.

Much of the historical literature on this period focuses on spymasters, intelligence organizations and specific incidents or on one power's intelligence efforts. Two books by Christopher Andrew, a British historian of intelligence, are highly recommended — a lively history of British intelligence after 1800, *Her Majesty's Secret Service: The Making of the British Intelligence Community* (New York: Viking, 1985), and how American Presidents used intelligence — *For The President's Eyes Only: Secret Intelligence and the American Presidency from Washington to Bush* (New York: Viking, 1995), see especially pp. 12-64. For an excellent survey of French intelligence history, see Douglas Porch, *The French Secret*

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Historical. The Lie Detectors: The History of an American Obsession, Ken Alder Perfect Spy: The Incredible Double Life of Pham Xuan An, Time Magazine Reporter & Vietnamese. Communist Agent, Larry Berman Reclaiming History: The Assassination of President John F. Kennedy, Vincent Bugliosi Setting the Desert On Fire: T. E. Lawrence and Britain's Secret War in Arabia, 1916–1918, James. The concept and early devices existed in the 1800s. The book is intended as a college-level guide for those working in law enforcement, forensics, military surveillance, covert operations, counterintel-ligence, and journalism and politics. It is well-illustrated, and, though there are no endnotes, each chapter has many references. A very valuable reference. Recent papers in Cultural History of Habsburg Empire 1800-1918. Papers. People. Upon his return to Croatia from Rome on March 26, 1875, Strossmayer gave a generous donation to the Academy: his collection of paintings and 40 000 forints (a substantial sum of money at the time) to support the palace construction. Together with Franjo Rački he started an intensive campaign to persuade the Croatian government (headed by the governor Ivan Mažuranić) and the city authorities of Zagreb (headed by the mayor Ivan Vončina) to support the whole project by granting funds and an appropriate lot for the palace. History of Computing CSEP 590A University of Washington December 2006 Introduction – Chris Smith The Turing Test – Brian McGuire History of AI applied to Chess – Chris Smith Expert Systems – Ting Huang AI Winter and its lessons – Gary Yang Japan's Fifth Generation Computer System project – Chris Smith Conclusion – Chris Smith. This paper is about examining the history of artificial intelligence from theory to practice and from its rise to fall, highlighting a few major themes and advances. 'Artificial' intelligence. The term artificial intelligence was first coined by John McCarthy in 1956 when he held the first academic conference on the subject.