Espionage Against America

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At the beginning of the 20th Century, the United States transcended being an isolated nation separated by vast oceans and engaged in world events, becoming a prime espionage target for military, political, intelligence, and economic information.

America: The Target

America’s pivotal role in World War I altered its position in the international arena. No longer a distant country, America’s industrial power and the outbreak of WW I made it of interest to Europe’s intrigues. Even before the US entered the war, the German Intelligence Service in 1914 began sending its officers to the US.

Today, the US is a major target of espionage for more than 140 foreign intelligence services. Why? Because it has the most advanced technologically-enabled military the world has ever witnessed with a global footprint, is involved with every significant world event, and has the strongest and most advanced economy. It is also the world’s financial center. More than any other nation, the US is the creator of ideas. It leads the world in research papers, patents issued, and expenditures by industry and government for research and development. The US is the center of higher education for the world, especially the developing world, including China.

Foreign intelligence collectors seek US classified information and technology, especially those with military applications. However, today anything of value is a highly prized target for economic espionage, including proprietary information, trade secrets, and R&D data. Prime private sector targets are industries in the information technology, manufacturing, financial, and pharmaceutical fields. But consumer companies, biological, and medical institutions, and the service sector are increasingly targeted.

1 In a speech before the ABA Standing Committee on Law and National Security on March 29, 2007, Joel Brenner, the National Counterintelligence Executive (NCIX) stated “there are now 140 foreign intelligence services that try to penetrate the United States or US organizations abroad, and for many of them, we are their number one target.” (Cited by Michael Sulick (2012). Spying in America: Espionage from the Revolutionary War to the Dawn of the Cold War, Washington, DC: Georgetown University Press, p 271.)

2 Scientific American October 2012, p 44.

3 Seventeen of the top 20 universities are in the United States according to the 2013 academic ranking of world universities by Shanghai Jiaod Tong University. They are Harvard, Stanford, University of California at Berkeley, MIT, CalTech, Princeton, Columbia, University of Chicago, Yale, University of California at Los Angeles, Cornell, University of California at San Diego, University of Washington, Johns Hopkins, University of California at San Francisco, University of Wisconsin – Madison. Non-US universities cited were the University of Cambridge, University of Oxford, and the Swiss Federal Institute of Technology – Zurich. (Reported in Foreign Policy magazine, July/August 2014, p 63.)
Russia, Cuba, and the Peoples Republic of China (PRC), are -- and have been -- the most aggressive in targeting US national security information. Since the Economic Espionage Law of 1996 was passed, 85% of all the economic espionage cases resulting in criminal charges have involved spies from Asian countries including the PRC, Taiwan, South Korea and India, with the PRC being the most active. The number one country behind the illegal export of restricted technology is Iran, with the PRC the next largest diverter of technology.4

US Counterintelligence

Counterintelligence (CI) is a strategic discipline whose mission has been redefined many times in the past 100 years. Its primary focus has been, and continues to be, to identify nations, organizations, and individuals involved in intelligence collection activities directed against US government institutions, private sector organizations, individuals (including the media), and to take action to neutralize those efforts. According to Executive Order 12333, as amended by EO 13470 signed August 2008, counterintelligence is defined as:

- information gathered and activities conducted to identify, deceive, exploit, disrupt, or protect against espionage, other intelligence activities, sabotage, or assassinations conducted for or on behalf of foreign powers, organizations, or persons, or their agents, or international terrorist organizations or activities.

As such, counterintelligence includes the disciplines of security counter-measures, operations security, counter-terrorism, and countering offensive actions directed against the US. The CI discipline is a secondary decision by the state. The decision to conduct intelligence operations against a state or organization is a ‘primary’ decision. Thus, if no efforts are made to “counter” an intelligence activity, it becomes easier for the collector. Therefore one “cannot not do counterintelligence” because the decision to collect against you has already been made.

The intelligence collection threats to the US and its CI responses have evolved. For most of its early history, the US government had no intelligence or CI organizations. When threatened, the US temporized and then disbanded its ad hoc capabilities at the conclusion of hostilities.5

The Anarchist threat in the early Twentieth Century finally spurred the US government to action. Attorney General Charles Bonaparte in 1908 created the Bureau of Investigation (the predecessor of today’s FBI), largely to counter this threat which was viewed as originating from overseas. Thus the FBI, from its origins, was primarily a counterintelligence -- vice law enforcement -- organization.

Espionage History

4 CiCentre analysis of publicly revealed espionage and trade diversion cases. (www.cicentre.com).
5 See Sulick (2012) for the history of how counterintelligence was handled by John Jay’s Committee on Detecting and Defeating Conspiracies during the Revolutionary War, the exploits of Pinkerton and Baker during the Civil War, and during the Spanish-American War.
World War I

With the outbreak of World War I, the German General Intelligence Staff immediately targeted the neutral US with a focus on sabotaging, preventing, or disrupting shipment of war materials to Germany’s enemies. Starting in 1914, their agents began sabotaging US munitions and chemical plants, and planted bombs on munitions ships crossing the Atlantic Ocean, causing fires and sinkings. The massive explosion on Black Tom’s Island in Jersey City harbor on July 30, 1916, that killed two, injured hundreds, and blew out windows in Manhattan across the Hudson River, was caused by German agents and led to the passage of the Espionage Act of 1917.

Post World War I

In 1919, Anarchists sent letter bombs to 36 Americans, including Attorney General A. Mitchell Palmer. One Italian Anarchist accidentally blew himself up on the doorstep of Palmer’s Washington D.C. home. The Department of Justice misunderstood the difference between an anarchist and a communist. Communist activity was growing in the US as a response to the communist revolution in Russia in 1917. In this environment, Congress passed an amendment to the Espionage Law (the Sedition Act of 1918), which made it a crime to advocate the overthrow of the US if you were an alien, punishable by deportation, but not a crime if you were a US citizen. Arrests could be made without warrants. In January 1920, Palmer directed the Bureau of Investigation along with local police to detain over 10,000 people, with 3,000 of those arrested. Using the Sedition Act, 556 foreigners were deported to Europe. Initially this action was supported by the public and media. Palmer became a leading candidate for President. In 1920, however, he predicted communist riots, which did not materialize. Legal experts and the media began criticizing Palmer and the Bureau’s alleged heavy-handed methods, which led to congressional hearings in 1921. This led to a public rebuke of CI activities, which were viewed by some as persecution of individuals’ political beliefs. When J. Edgar Hoover was appointed director of the Bureau of Investigation in 1924, he directed that the Bureau only investigate violations of law. With this decision, the US discontinued all CI activities.

Also in 1924, the first Soviet military intelligence (GRU) officers arrived in the US establishing an illegals Rezidency. In 1928, the first OGPU10 illegals11 arrived. Since the US had no active CI organization, it was unaware of the presence of these intelligence collectors. Over the next two decades, the Soviets grew multiple espionage networks in the

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6 The Germans also undertook biological warfare by infecting mules and horses being shipped to the war in Europe.
7 No individuals were arrested for the Black Tom’s Island sabotage.
8 The efficacy of the US Government to investigate political beliefs has been, and continues to be, a contentious issue. It boils down to the question “does belief lead to action” and if it does, should the government investigate belief to prevent action that could damage the State?
9 Some local police departments established intelligence squads to continue to investigate communist organizations and individuals in their cities.
10 OGPU was the Joint State Political Directorate, the Soviet secret police from 1922 to 1934. For a history of Soviet and Russian secret services see Robert Pringle, “Guide to Soviet and Russian Intelligence Services,” The Intelligencer, Vol. 18, No. 2, Winter/Spring 2011.
11 An “illegal” is an intelligence officer who operates under either his true name or a false identity and is not connected ostensibly with a facility associated with the illegal’s sponsoring country.
US in conjunction with domestic communist movements. They were involved in recruiting and/or handling individuals who volunteered to be espionage agents -- most of whom were ideologically sympathetic members of the Communist Party of the US and, in the Depression era, believers of Soviet propaganda.

**World War II**

With the rise of the Nazis in 1933, there was a growth of pro-Nazi sympathy of the German-American Bund. President Roosevelt directed the FBI to begin investigating the Bund in 1938, and Congress provided special funding to jump-start this CI effort. By 1939, the president directed the FBI -- along with US Army Intelligence (MI) and the US Navy Office of Naval Intelligence (ONI) -- to undertake responsibility for counterintelligence, counter-espionage, and subversive investigations in the US.

In the 1930s, Nazi Germany and Imperial Japan began conducting aggressive espionage activity against the US (as did the Soviet Union). The FBI was successful in identifying, penetrating, and neutralizing the majority of the collection activities of Germany and Japan before the start of WWII, but not of the Soviet Union. German military intelligence, the Abwehr, had some success targeting US industrial secrets. In 1939, William Sebold, a naturalized immigrant in the 1920s, returned to Germany to visit his parents. Blackmailed to spy by the Gestapo, who turned him over to the Abwehr, Sebold alerted US authorities while still in Germany and volunteered as a double agent for the FBI. When he returned to the US in 1941, Sebold became the Abwehr’s radio operator for every German agent operating in the US. This enabled the FBI to arrest all 33 members of the Abwehr’s network. A year later, the Germans landed four agents on Long Island and four in Vero Beach, Florida by submarine. When one of the potential saboteurs turned himself in to the FBI, all were arrested within two weeks. Thus, Nazi Germany had no *bona fide* agents in the US. The subsequent ones they tried to operate were all controlled FBI double agents.

Japan also had some espionage success against the US prior to the attack on Pearl Harbor. The FBI and ONI attempted a double agent CI operation against the Japanese but were...

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12 From sympathizers in 1937 the Abwehr obtained the formula for synthetic rubber, which proved essential for its military during the war, and the highly classified Norden bombsight. The Germans, however, were unable to manufacture the bombsight. (Sulick (2012), p 134-6).
13 The security police of the Nazi regime.
14 Six of the eight were executed in Washington DC in August of the same year.
16 In early 1942 diplomatic relations were broken and all German diplomats and businessmen in the US were detained by the US Army at The Greenbrier -- a luxurious resort in the West Virginia mountains -- and later deported to Germany.
17 Before the war several Japanese spies were arrested and prosecuted, including: former naval officer John Seemer Farnsworth (who spied from 1933 to 1937), who compromised the gunnery capabilities of every US ship; Otto and Friedel Kuehn, of Honolulu, who provided intelligence on Pearl Harbor from 1936 to 1941; U.S. Army Captain Rufo Caingat Romero, who attempted to sell for $25,000 ($291,000 in 1999 dollars) classified maps of Bataan and Corregidor to an individual with Japanese intelligence connections (Romero was a Japanese agent from 1939 to 1940 when he was arrested and sentenced to 15 years in a federal penitentiary); and Harry Thomas Thompson, a former US Navy yeoman, who spied for Japan in...
prevented by the Department of State after Tokyo threatened the arrest of American military officers in Japan. The well-funded Japanese espionage efforts that had operated in America for several years before the war passed a high volume of intelligence to Tokyo. Japan attacked the US six months later using intelligence collected by their agents and by a Japanese intelligence officer in Hawaii assigned to the consulate – Navy Lt. Takeo Yoshikawa. As with the Germans, in early 1942 all Japanese diplomats and businessmen in the US were detained by the Army, placed under house arrest at The Homestead -- a resort in Hot Springs, Virginia -- and later deported to Japan via Mozambique, eliminating wartime intelligence collection against the US. Based on previous investigations, the FBI arrested 3,346 individuals identified as German, Italian, or Japanese enemy aliens within the first 72 hours after Pearl Harbor. These arrests were based on information indicating each individual represented a genuine national security threat to the nation.

Treasury Secretary Morgenthau proposed in December 1941 the relocation of all Japanese-Americans away from the West Coast and the freezing of Japanese assets and businesses. Morgenthau asked FBI Director Hoover if this could be done. Hoover referred the request to Attorney General Frank Biddle and advised that he opposed such a move, stating “arrests of enemy aliens had already been made...that factual cases had been prepared on each of them and their arrests approved by the Attorney General...that of course, citizens of the United States were not being included in any arrests, unless there were specific actions upon which criminal complaints could be filed.” By E.O. 9066 Roosevelt tasked the Army with the responsibility to relocate more than 120,000 Japanese-Americans, the majority from the West Coast. No Japanese-Americans were detained in Hawaii.

Soviet Espionage

The FDR Administration was deeply penetrated by Soviet spies. Subsequent research of primary sources identified 541 clandestine Soviet agents in the US during the period of 1940 to 1950. Further revelations from KGB files smuggled out by Vasili Mitrokhin, a

18 Between March and June 1941, the CI operation targeted a Japanese intelligence ring that had 13 agents on the West Coast and in Hawaii. A critical tip came in March 1941, when Al Blake told the ONI in Los Angeles an old acquaintance, Torachi Kono, had asked him to spy for Japan. Operated as a double agent by ONI and the FBI Blake was tasked by the Japanese to collect intelligence on Pearl Harbor. Kono was arrested in June 1940 along with Itaru Tachibana, who ran a ring of agents, and another intelligence officer. Following their arrests and Tokyo’s threat of retaliation the State Department requested the U.S. attorney in Los Angeles not to prosecute. All were allowed to leave the US for Japan without being prosecuted.

19 There was at least one Japanese agent in the US during World War II. Between 1935 and 1944, Velvalee Dickinson, who owned and managed a doll shop in New York City, used correspondence about dolls to conceal information about US Naval forces, which she was attempting to convey to the Japanese via South America. She was identified by wartime censors.

20 These sources include the KGB files smuggled out of the USSR by KGB archivist Vasili Mitrokhin in 1991; Alexander Vassiliev, a former KGB officer, emigrated to the UK in 1996 and co-authored two books based on KGB files; and VENONA, the Army, later NSA, effort to decrypt Soviet transmissions, which revealed extensive espionage against the US and by name the identities of 349 agents.
retired KGB officer, indicate that the Soviets had as many as 1,000 sources in the US.21 Almost all of these individuals were either members of the US Communist Party or were sympathetic to communist objectives. The Soviets had so many agents and so few intelligence officers in the US that American agents ran other American agents. During WWII, the Soviet Intelligence Services (NKVD and GRU) had only 18 professional intelligence officers in the US to control this large number of agents.

In the 1940s the Soviets ran “the most colossal espionage operation against the United States in its history.”

By the end of the Second World War, Soviet spies had penetrated every agency in the US Government except the FBI and ONI. By 1947, at the start of the Cold War, the US had essentially no political, military, and or industrial secrets uncompromised by Soviet intelligence.

Figure 1. Examples of a few of the Many Soviet Spies in the US Government 1930s – 1950

<table>
<thead>
<tr>
<th>Name</th>
<th>Spied for</th>
<th>Impact / Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harry Dexter White</td>
<td>NKVD</td>
<td>A top Soviet spy of the 1930s and 40s.23 Provided sensitive Treasury documents to Soviets. Also provided engraving plates for Allied military marks allowing Soviets to print occupation currency. Called to testify in front of Congress in 1948 about his espionage activity he testified for one hour and that week died of a heart attack.</td>
</tr>
<tr>
<td>Assistant Secretary of Treasury</td>
<td>1934-45</td>
<td></td>
</tr>
<tr>
<td>Alger Hiss</td>
<td>GRU</td>
<td>Delegate to Yalta conference. Provided information that allowed Stalin to insist on having veto power in the proposed UN Security Council. Acting secretary-general at UN founding conference. Only convicted of perjury. Served 44 months in prison.</td>
</tr>
<tr>
<td>Director, Office of Special Political Affairs, Department of State</td>
<td>1935-45</td>
<td></td>
</tr>
<tr>
<td>Lauchlin Currie</td>
<td>NKVD</td>
<td>Longest serving Special Assistant to FDR. Provided detailed information on presidential decisions. Revealed existence of the VENONA program to Soviets. Currie was one of those blamed for losing China to the Communists by the actions he took in Treasury and the White House. Used his position to influence efforts to cover up the Amerasia magazine espionage in 1945.24</td>
</tr>
<tr>
<td>White House economic advisor</td>
<td>Mid 30s to 1945</td>
<td></td>
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</tbody>
</table>

24 A June 1945 FBI raid on the offices of Amerasia magazine discovered 1,700 classified State Department, Navy, OSS, and Office of War Information documents. Three staff were indicted, but only two were fined. The “Amerasia Affair” became a cause célèbre for anti-communists, including Senator Joseph McCarthy.
<table>
<thead>
<tr>
<th>Name</th>
<th>Agency/Country</th>
<th>Years</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duncan Lee</td>
<td>NKVD</td>
<td>1942-44</td>
<td>Denied espionage when he testified to Congress in 1948 and moved to Colombia. Revealed “anti-Soviet” activities by OSS including support to Eastern European groups that wanted to keep the Soviets out of their countries. Also revealed activities at Oak Ridge, part of the Manhattan Project. Denied espionage when he testified to Congress in 1948, moved to the Caribbean and later to Canada.</td>
</tr>
<tr>
<td>William Weisband</td>
<td>NKVD</td>
<td>1934-50</td>
<td>Revealed US had broken high-grade codes used by Soviet military, police, NKVD and nuclear development program (Project BOURBON). Also revealed VENONA project was decrypting Soviet intelligence and military communications. US SIGINT went deaf when Soviets changed codes. Only sentenced to 1 year for contempt of court.</td>
</tr>
<tr>
<td>Laurence Duggan</td>
<td>NKVD</td>
<td>1934-48</td>
<td>Provided Soviets copies of cables from US ambassador in Moscow to State Department. On December 15, 1948, ten days after being questioned by the FBI about whether he had had contacts with Soviet intelligence Duggan fell to his death from his office at the Institute of International Education, on the 16th floor of a building in midtown Manhattan.</td>
</tr>
<tr>
<td>Judith Coplon</td>
<td>NKVD-MGB</td>
<td>1945-49</td>
<td>Worked in foreign agents registration section and then in counterintelligence with access to FBI files. Passed sensitive documents to her Soviet handler. Convicted in 1950 but released on bail in 1952, her conviction was overturned on a technicality.</td>
</tr>
<tr>
<td>Charles Kramer</td>
<td>NKVD</td>
<td>1944-45</td>
<td>Tried to recruit as a spy Robert Oppenheimer, the Los Alamos chief of development for the Manhattan Project. Kramer had been for more than two years one of the principal subjects of an FBI investigation of Soviet espionage launched in early November 1945, following the defection of Elizabeth Bentley to the FBI. Bentley claimed that Kramer was a leading member of an espionage ring headed by Victor Perlo. Kramer was interviewed by FBI agents on August 27, 1947, but “refused to discuss his activities during the period when he was employed by the US Government.” In the summer of 1948, Kramer was publicly identified by Bentley and Whittaker Chambers, another defector from the Soviet cause, as a member of the Communist and Soviet underground in the 1930s and during World War II. When called to testify before the House Committee on Un-American Activities (HUAC),</td>
</tr>
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25 Some believe Weisband’s 1948 revelations about Project BOURBON caused the US to miss warnings about Stalin’s approval of North Korea’s 1950 invasion of South Korea, a conflict that resulted in 4 million casualties including over 36,000 American dead. Historians Harvey Klehr and John Haynes wrote [Weisband] “did incalculable damage to American interests and likely changed the course of the early Cold War.” (quoted by Sulick (2012), p 177).
Kramer refused to answer any questions about his Communist background. He continued to work for the Progressive Party until it disbanded in 1955, after which he moved to Oregon.

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
<th>Years</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Klaus Fuchs</td>
<td>GRU, later NKVD</td>
<td>1941-50</td>
<td>Member of the British Atomic Energy Research Establishment, Fuchs was sent from London to the US to work on the Manhattan project. Assigned to Oak Ridge and Los Alamos. Gave Soviet sketches of the atomic bomb and its components and research on ignition systems and the bomb core – two critical components. Also revealed British atomic research secrets. Sentenced to 14 years; moved to East Germany after release in 1959.</td>
</tr>
<tr>
<td>Julius &amp; Ethel Rosenberg</td>
<td>NKVD</td>
<td>1942-50</td>
<td>Ran ring of 8 agents that provided more than 20,000 documents and much information on the atomic bomb as well as more than 100 other weapons programs. Convicted and executed in 1953.</td>
</tr>
<tr>
<td>Theodore Hall</td>
<td>NKVD, then MGB</td>
<td>1944-53</td>
<td>Revealed secrets of the plutonium bomb and the use of a polonium trigger. The first Soviet bomb test in 1949 employed plutonium with a polonium trigger. Maybe the most important of all of the atomic spies.26 He was never arrested or publicly identified as a Soviet spy until the 1990s.</td>
</tr>
<tr>
<td>George Koval</td>
<td>GRU illegal</td>
<td>1940-48</td>
<td>American born, emigrated to USSR in 1932 with his parents. Hired by the GRU to be an illegal. Returned to US in 1940 and joined the Army in 1943. Deputy GRU illegal Rezident in New York and later penetrated Oak Ridge. Provided the Soviet Union information about the production processes and volumes of the polonium, plutonium, and uranium used in American atomic weaponry, and descriptions of the weapon production sites. Vanished in 1948 after being warned by the GRU and returned to USSR.</td>
</tr>
</tbody>
</table>

Soviet penetration of British intelligence also impacted US national security. The US shared much intelligence with Britain after the war. Soviet spies in Britain’s wartime Government Communications and Cipher School (GCCS) provided Moscow with details of intelligence gained from the Enigma decryptions as well as other cryptographic information. Kim Philby, the wartime head of SIS’s27 offensive CI branch, was a Soviet spy. His postwar posting to Washington, DC in 1949 provided him with access to VENONA decrypts. In 1951, Philby warned his fellow “Cambridge Five” conspirator Donald Maclean that he had been

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27 Secret Intelligence Service, also known as MI6.
identified as a Soviet agent and was about to be arrested. Given this warning, Maclean, accompanied by his fellow spy Guy Burgess, escaped to Moscow.

The FDR Administration had been warned in 1939 that there were hundreds of Soviet agents within the administration. Adolph Berle, the Under Secretary of State, told FDR of information provided by disaffected communist, GRU and OGPU agent Whittaker Chambers and NKVD illegal defector Walter Krivitsky. FDR dismissed the warnings as “absurd.” In 1949, the three-year old VENONA project, designed to read Soviet wartime diplomatic codes and encrypted cables, produced intelligence on Soviet espionage in the US. As WWII ended, a few of the “true believers” who were clandestine agents of the GRU and NKVD revealed their espionage activities. This included Whittaker Chambers, who serviced a spy ring within the State and Treasury Departments, and Elizabeth Bentley, a NKVD courier, who revealed to the FBI in August 1945 more than 80 Soviet intelligence agents, 27 of whom worked in the government. VENONA added to the revelations from Igor Gouzenko, a Soviet code clerk, who defected in 1945 in Ottawa, taking more than 100 documents about Soviet espionage in Canada and the US. When the FBI advised the British Secret Service of Bentley’s defection and the details of Soviet agents, Kim Philby immediately warned the NKVD. The NKVD quickly put its entire agent network “on ice.” As the FBI began to investigate the individuals identified by Bentley, none were actively engaged in espionage because of Philby’s disclosure. This explains why so few Soviet spies of this era were arrested. Chambers and Bentley testified before Congress in 1948 but were ridiculed by many in the media and Congress. President Truman, at a press conference, authorized the following direct quotation about Congress: “They are using these hearings simply as a red herring, to keep from doing what they ought to do.” Eleanor Roosevelt described Elizabeth Bentley’s testimony as “the fantastic story of this evidently neurotic lady.”

Americans have always disbelieved that one of their own would spy against the country. “This disbelief spawned a ‘national capacity for naïveté,’ as former CIA counterintelligence chief Paul Redmond dubbed it, which surfaced as early as the American Revolution.”

Senator Joseph McCarthy seized upon reports about the lax security within the FDR administration during WWII as well as the 1948 House hearings. He held repeated Senate hearings from 1952 through 1954, questioned government officials and made unsupported allegations. While the basis of McCarthy’s charges are now known to be true, his methods, inaccuracies, and excesses negatively impacted CI efforts, causing them to be viewed with disrepute by the public and media.

After WWII, the Soviet NKVD (later MGB/KGB) and GRU decided against using anyone as espionage agents who had communist connections, because American CI was aggressively targeting the communist party or communist sympathizers. In 1957, Rudolf Abel, who

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29 In fact, Congress had outlawed the Communist Party in 1940 with the passage of the “The Alien Registration Act” known as “The Smith Act” (18 USC § 2385). It stated that whoever with intent to cause
came to the US as an illegal in 1948, was arrested and convicted with considerable publicity.\textsuperscript{30} Between 1945 until 1965, fifty individuals were charged with espionage-related charges in the US, 43 of who were spies for the Soviet Union.

During the period from 1945 to 1992, US CI programs concentrated on countries that were considered hostile to the US, which included all Warsaw Pact countries. This was the “criteria country list.” A few countries allied with the US were identified as also conducting espionage and, after repeated warnings, were added to the “criteria country list.” The vast majority of US CI efforts, however, were directed toward the Soviet Union.

The “Dark Ages”

Some refer to the period of 1965 to 1975 as the “Dark Ages” for US CI. The first Soviet intelligence officer to become a CIA recruitment-in-place was GRU Lt. Col. Pyotr Popov, who volunteered in Vienna, Austria in 1953. He was arrested by the KGB in 1959. The CIA did not know how he was compromised. When KGB Major Anatoly Golitsyn defected to the CIA in Helsinki in 1961, he advised that the CIA was penetrated by a “mole” (code name “Sasha”) and that the KGB was planning a massive deception operation supported by false defectors and agents. James Angleton, head of CIA’s counterintelligence, became obsessed with the concept and of the existence of moles in the CIA. When another KGB officer, Yuri Nosenko, defected to the CIA in 1964, claiming that former US Marine Lee Harvey Oswald (who had defected to the USSR and returned and assassinated President JFK) had never been recruited by the KGB, Angleton became convinced Nosenko was a false defector, a part of the deception plan outlined by Golitsyn. CIA imprisoned Nosenko in 1964 for three years.\textsuperscript{31}

Before Angleton’s tenure, US intelligence had 13 Soviet intelligence officers as “recruitments-in-place;” beginning in 1966, CIA’s offensive HUMINT operations against the USSR came to a halt. No new sources were recruited or walk-ins accepted by the CIA since CIA’s CI managers considered all potential new Soviet sources controlled by the KGB as part of a massive deception operation.

Between 1966 and 1974, thirteen individuals in the US military were arrested by US military CI for espionage for the Soviet Union. The FBI arrested only one individual for espionage during this period.

On the domestic front, to the detriment of foreign CI, the FBI’s primary CI focus was on domestic groups opposing the Vietnam War and the racial conflict in the US. This included such groups as the Students for a Democratic Society (SDS), the Weathermen, Jewish

or advocate the overthrow or destruction the government in the United States by force or violence has committed a felony. Since the Community Party advocated this objective, it became de facto illegal to be a member of the Party.

\textsuperscript{30} Abel was sentenced to 30 years in prison but was exchanged in 1962 for U-2 pilot Francis Gary Powers.

\textsuperscript{31} The Nosenko affair remains controversial. Divided opinions as to his bona fides and how CIA handled his case and who was responsible remain. See Sam Halpern and Hayden Peake, “Did Angleton Jail Nosenko?,” \textit{International Journal of Intelligence and Counterintelligence}, Vol. 3, No. 4, pp 451-64, and David Wise, \textit{Molehunt}, New York, Random House, 1992, especially Chapter 11, “AEFOXTROT.”
Defense League (JDL), Black Panthers, Ku Klux Klan (KKK), Republic of New Africa, and others implicated in violence and/or bombings, including of the US Capitol. During the years 1972 to 1975, the nation’s politics were diverted by the Watergate break-in, the investigation of the president’s cover-up actions, and pending impeachment, including assertions by the media of alleged misdeeds by the Intelligence Community. In 1975, the Senate convened an investigatory committee, and the House of Representatives conducted a similar investigation of the US Intelligence Community.\(^{32}\) While much criticism was leveled at various intelligence agencies, including the FBI’s domestic intelligence program against communist and hate groups, the FBI’s Foreign Counterintelligence program was largely exonerated. The Church Committee agreed to keep the FBI’s national double agent operations secret, and out of its reports, and did not define double agents as a “covert action” requiring Congress be advised of these operations as it is for other covert action programs.

**The “Golden Age” – 1975 to 1992**

Following the “Dark Ages,” a new “Golden Age” emerged for CI. In 1975, Angleton was forced to retire by CIA Director William Colby. Nosenko was deemed a real *bona fide* defector, and much of Golitsyn’s information was determined to be untrue and/or embellishments. In the period from 1975 to 1992, US CI arrested or filed charges against 125 individuals as clandestine agents of which 62 were working for Soviet intelligence. One of the reasons for this success was the number of Soviet intelligence officers “recruited” by the FBI (10) and by CIA (10). In addition, previous concerns about holding public trials for espionage, which could compromise intelligence sources and methods, were tempered with the passage in 1980 of the Classified Information Procedures Act \(^{33}\) that allowed use of classified materials without public disclosure.

*Time* magazine labeled 1985 “The Year of the Spy” due to the number of espionage cases revealed. Eighteen individuals were arrested and 10 identified as Soviet agents. Those arrested included Navy Warrant Officer John Walker and his ring of 3,\(^{34}\) Ronald Pelton from NSA, and Army Warrant Officer James Hall (all Soviet spies); Navy Middle East analyst Jonathan Pollard (an Israeli spy); and Larry Wu-Tai Chin, a CIA translator and later China analyst (the longest active PRC spy against the US). During the decade of the 1980s, 92 Americans were arrested for spying, 47 for the USSR.

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\(^{32}\) The Senate Select Committee to Study Government Operations with Respect to Intelligence Activities, known as the Church Committee after its chairman, Senator Frank Church, and the “Pike Committee,” after its chairman, Representative Otis Pike.

\(^{33}\) 18 USC App. III § 1-16.

\(^{34}\) By providing cryptographic materials to the Soviets “Walker and his fellow spies alone had upset the balance of nuclear defense in the Soviet’s favor.” [Former KGB major general] “Oleg Kalugin called Walker ‘the number one agent’ in the history of the KGB.” “Vitaliy Yurchenko echoed Kalugin’s assessment.” “... the Walker case was the greatest in KGB history and even surpassed the atomic bomb spies.” (Sulick (2012), p 105).
The fall of the Berlin Wall opened up new sources of counterespionage information for the CIA and FBI.\(^\text{35}\) As the Soviet Union began to break-up, another new source became available. In 1992, Vasili Mitrokhin, a retired KGB officer and archivist at the KGB Centre, who had secretly copied thousands of pages of official KGB files, defected and provided this information to British and US intelligence,\(^\text{36}\) the most important CI source since VENONA.

At the direction of President George H. W. Bush in 1990, the Intelligence Community did a comprehensive study to identify all the countries conducting intelligence collection against the US: over 70 were identified. In 1992, the FBI restructured its approach to CI and adopted the “National Security Threat List” (NSTL), which categorized countries as either aggressively targeting the US and representing a military threat or those conducting some level of collection and exploiting the US. Espionage related to “the proliferation of chemical, biological, and nuclear weapons; the loss of critical technologies; and the illegal collection of private sector trade secrets and proprietary information” were considered threat issues. The result was the collection activities of many more countries were examined. It became apparent that the US’s Cold War adversaries were not the only ones spying on America. Countries identified as aggressively pursuing espionage against America included old enemies such as the USSR, Cuba, and the PRC and newly identified collectors such as Taiwan and South Korea.

“...there are friendly nations, but no friendly intelligence services.”\(^\text{37}\)

Recent History

Spy cases continued after the collapse of the Warsaw Pact and the Soviet Union between 1989 and 1991. CIA’s most notorious case was CIA officer Aldridge Ames who betrayed numerous human assets, at least ten of whom were executed.\(^\text{38}\) Others – FBI special agent Earl Pitts (a Russian spy); CIA case officer Jim Nicholson (also a spy for Russia); US Air Force NCO Jeffrey Carney (spy for East Germany); NSA employee Robert Lipka (spy for the USSR); DIA employee Robert Kim (spy for South Korea); and DoD employees Kurt Stand,.
Theresa Marie Squillacote, and James Clark (spies for East Germany) – were added to the list of many penetrations of the US Government.

In 2001, in the most damaging espionage case since Rick Ames in 1991 and the 1985 John Walker case, the FBI arrested one of its own – Supervisory Special Agent Robert Hanssen. An FBI counterintelligence expert, Hanssen revealed many US assets in Russia. Further, he revealed the complete national double agent program, names of personnel targeted for recruitment, a covert tunnel under the Soviet embassy in Washington, D.C. for SIGINT collection, the fact the US was reading Soviet communications satellite transmissions, many of NSA’s limitations, and the US government’s continuity of government plans in the event of war, along with many other strategic and tactical secrets. “Thanks to Hanssen, the Russians owned the FBI’s defensive playbook and knew in advance where the holes in the line were to run their offense.”

Cuba’s Dirección General de Inteligencia (DGI), now known as the DI -- a KGB surrogate and aggressive intelligence service -- had long-term highly placed agents in the national security community. Three of its spies in the US Government were uncovered by US CI. Ana Belen Montes, a senior CIA analyst and Cuban agent from 1984-2001, exposed the identities of US agents in Cuba, US technical collection programs, counternarcotics outposts in Central America, US Intelligence Community assessments of Cuba, and US military contingency plans. Kendall and Gwendolyn Myers passed State Department secrets to Cuba for 28 years from 1979-2006 and were arrested in 2009 three years after he retired from the State Department.

“By the start of the 21st Century, Russian espionage threat was overshadowed by Chinese spying,” with the majority of Chinese espionage cases involving theft of private sector technologies. However, a Chinese defector also revealed that most of the US’s nuclear weapon secrets had been stolen by China. Susicion fell on two Chinese-Americans working in two nuclear weapons labs – Guo Bao Min and Wen Ho Lee. The former was never prosecuted but fired. Lee was freed by a judge after an unsuccessful investigation but also fired.

By the 21st Century, economic espionage rose considerably. Sulick notes that “...revolutionary [technological] advances... changed spying against America. In the globalized economy, corporate information became as important to a nation’s security as military and political secrets.” In response, in 1996, the US enacted the Economic

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40 In 1998 the FBI arrested five infiltrated Cuban intelligence agents (the “Wasp” network) in Florida who were targeted against Cuban-American groups and the US Southern Command. They were sentenced variously to 15 years to life for espionage, conspiracy to commit murder, and other charges.
41 These included the W-78 warhead for the Minuteman ICBM; the W-76 for SLBMs; the W-87 for the MX Peacekeeper ICBM; the W-62 for the Minuteman III; the W-56 for the Minuteman II; the W-88 for the Trident D-5, and the W-70 neutron warhead. (Wise, footnote 60, p 254.)
42 Guo Bao Min worked at Lawrence Livermore National Laboratory (LLNL), and Wen Ho Lee at Los Alamos National Laboratory.
Espionage Act, making the misappropriation of private sector proprietary information and trade secrets a federal crime.

Armed with this new law, US CI pursued the Chinese who targeted US private sector industries. The Mak family ring, when broken up in 2005, had been selling defense technologies to China for almost 30 years. When arrested, Dofung Chun, a Boeing engineer, had 250,000 pages of technical documents ready to provide to China.

Figure 2. Thirty Significant Spy Cases Impacting the US Since 1960

<table>
<thead>
<tr>
<th>Name</th>
<th>Spied for</th>
<th>Impact / Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nelson Drummond</td>
<td>GRU 1957-62</td>
<td>Handled over a great volume of classified information on naval combat systems, anti-submarine electronics, missile systems and submarine support equipment. In 1963 sentenced to life.</td>
</tr>
<tr>
<td>Kim Philby</td>
<td>NKVD-MGB 1934-63</td>
<td>Passed UK and US counterintelligence information to USSR. Provided complete list of British agents worldwide to Moscow. Compromised Allies ULTRA secrets in WW2. Recruited other spies: Donald Maclean (UK Foreign Office), Guy Burgess (MI6 &amp; Foreign Office). With access to VENONA decrypts he alerted Maclean to flee the UK. Fled to USSR in 1963. Awarded the Order of Lenin and Red Banner of the KGB.</td>
</tr>
<tr>
<td>Robert Johnson</td>
<td>MGB-KGB 1953-65</td>
<td>Compromised all materials (more than 1,600 documents) passing through classified distribution facility at Orly airport, Paris, including codes, ciphers, operational plans, nuclear targets, intelligence reports, and SIGINT evidence of warning of attack. Convicted and sentenced to 25 years. Murdered by his son in prison.</td>
</tr>
<tr>
<td>Andrew Dalton Lee &amp; Christopher Boyce</td>
<td>KGB 1975-77</td>
<td>Sold to the KGB information on the US’s RHYOLITE SIGINT satellite, Defense Department top secret, and NSA cryptographic information, providing ‘the USSR with a unique window into America’s ability to verify and monitor Soviet compliance with a treaty limiting the most lethal weapons aimed at the US</td>
</tr>
</tbody>
</table>

44 18 USC § 1831.
45 Dofung Chun had documents detailing the B-1 bomber, the Delta IV space launch vehicle, the C-17 cargo aircraft, the F-15 fighter, the Space Shuttle, and other systems.
William Kampiltes  
Central Intelligence Agency  
GRU  
1978

Boyce was sentenced to 40 years, with 27 more added after an escape. Lee received life: released in 1998. Boyce was released from prison in 2002.

Ronald Humphrey  
US Information Agency (USIA)  
Vietnam  
1976-78

Discouraged CIA employee. Quit in 1977. Sold to the GRU the Top Secret manual for the US’s newest spy satellite, the KH-11. Unfortunately sold the manual to a CIA asset in the GRU. Convicted and sentenced to 40 years; served 18 years.

David Barnett  
Central Intelligence Agency  
KGB  
1976-80

Identified CIA officers and sources in Indonesia. Also revealed a CIA operation (HABRINK) to exploit Soviet weaponry sold to Indonesia allowing the US to jam SA-2 missiles. Pled guilty, received 18 years, served 10.

William Holden Bell  
Hughes Aircraft Co.  
Poland  
1978-81

Revealed “quiet radar;” B-1 and B-2 electronics; F-15 look-down shoot-down radar; and Phoenix, Hawk, cruise, and anti-tank missile information. Saved Soviet hundreds of millions of rubles in R&D. Sentenced to 8 years. Bell’s handler, Polish illegal Marian Zacharski, sentenced to life, was exchanged in subsequent spy swap.

Larry Wu-Tai Chin  
Central Intelligence Agency  
MSP/MSS  
1948-85

Gave Chinese names of POWs in Korea who provided information “who undoubtedly met untimely deaths once they were repatriated after the war.” For 30 years leaked materials related to US intelligence and foreign policy toward China. Revealed Nixon’s desire to open diplomatic relations two years before policy was implemented. Convicted in 1986; committed suicide before sentencing.

Richard W. Miller  
Federal Bureau of Investigation  
KGB  
1964

Provided classified FBI information to his “lover,” Svetlana Ogorodnikova, a KGB agent who passed it on to the KGB in San Francisco. Sentenced to 20 years in prison.

Karel (Karl) Koecher  
Central Intelligence Agency  
Czech Intel  
1965-64

A Czechoslovakian illegal agent sent to the US. Hired as CIA translator, he provided Czech intelligence (and the KGB) identities of CIA officers and Russians being targeted for recruitment by the CIA. Provided information on Soviet diplomat recruited by the CIA, Alexander Dmitrievich Ogorodnik (Code name TRIGON), who committed suicide when arrested by the KGB.” Traded for dissident Anatoly Shcharansky in 1986.

John Walker  
US Navy  
KGB  
1967-85

Provided codes and key lists allowing Soviets to read 80% of all naval communications. Provided USSR with “war winning” advantage. Revealed how US detected Soviet submarines by acoustics. Recruited three others including two family members. Sentenced to two life terms plus 10 years. Died in prison in 2014.

<table>
<thead>
<tr>
<th>Name</th>
<th>Agency/Category</th>
<th>Start/End</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jonathan Pollard</td>
<td>US Naval Intelligence</td>
<td>1984-85</td>
<td>Provided Israel more than 1 million pages of classified documents. Identified the location of PLO Headquarters in Tunisia, which the Israelis later bombed. Pled guilty and sentenced to life.</td>
</tr>
<tr>
<td>Edward Lee Howard</td>
<td>Central Intelligence Agency</td>
<td>1984</td>
<td>Fired by CIA for drug use, minor theft and lying in this training, defected to Moscow and betrayed Adolf Tolkachev, an extremely valuable CIA source, and GTTAW, a cable tap in Moscow providing valuable scientific intelligence. Died of a broken neck in 2002.</td>
</tr>
<tr>
<td>Clayton Lonetree</td>
<td>US Marine Corps</td>
<td>1985-86</td>
<td>As Marine security guard at the US embassy in Moscow involved in a love affair with a female KGB agent and recruited to provide the KGB with information about who were CIA officers and embassy security systems in Moscow and Vienna, Austria. Court-martialed. Served only 9 years of 30-year sentence due to cooperation.</td>
</tr>
<tr>
<td>Clyde Conrad</td>
<td>US Army Europe</td>
<td>1974-88</td>
<td>Ran 11-member spy network for Hungary that betrayed NATO secrets, including war plans to defend Europe from the USSR, exact troop numbers, movements, and strategy in case of a Warsaw Pact attack. Arrested by Germany and sentenced to life in German prison. Died in Prison in 1998.</td>
</tr>
<tr>
<td>Jeffrey M. Carney</td>
<td>US Air Force</td>
<td>1982-91</td>
<td>Provided East Germany more than 100 classified documents on US SIGINT vs. Warsaw Pact and plans to dismantle Soviet communications in wartime. Damage was estimated at $14.5 billion. Defected to East Germany but arrested after reunification. Court martialed and sentenced to 38 years in prison; released after 11½ years for cooperating.</td>
</tr>
<tr>
<td>James Hall</td>
<td>US Army Europe</td>
<td>1982-85 and HVA 1982-88</td>
<td>Betrayed US electronic surveillance capabilities vs. Warsaw Pact. Passed to both the Soviets and East Germans an overwhelming amount of material. Betrayed Project Trojan, a worldwide ability to pinpoint armored vehicles, missiles, and aircraft, negating a significant US military advantage. Betrayed CIA’s Soviet Division counterintelligence. Compromised every CIA and FBI source within Russia; at least 10 were executed. Pled guilty and sentenced to life in prison.</td>
</tr>
<tr>
<td>Aldridge Ames</td>
<td>Central Intelligence Agency</td>
<td>KGB-SVR 1985-94</td>
<td>Numerous assignments in the CIA including Chief of CIA’s Soviet Division counterintelligence. Compromised every CIA and FBI source within Russia; at least 10 were executed. Pled guilty and sentenced to life in prison.</td>
</tr>
<tr>
<td>Edward Earl Pitts</td>
<td></td>
<td></td>
<td>Provided classified information about FBI CI investigation of KGB illegal operations in New York</td>
</tr>
</tbody>
</table>

48 LAKAM – Israeli Office of Scientific Liaison a specialized and little known spy unit established in 1957 with the mission to steal enough fissionable material from the US to enable Israel to build an atomic bomb while Israel built its own capability. Also stole plans for France’s Mirage fighter.

<table>
<thead>
<tr>
<th>Name</th>
<th>Agency/Company</th>
<th>Years</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert Hanssen</td>
<td>Federal Bureau of Investigation</td>
<td>1987-96</td>
<td>City and FBI employees under reinvestigation while assigned to the FBI security office. Pled guilty and received 27-year sentence.</td>
</tr>
<tr>
<td>Katrina Leung</td>
<td>FBI asset</td>
<td>1993-2002</td>
<td>Double agent working with the FBI in Los Angeles against the PRC. Provided to MSS classified FBI information. Pled guilty to tax evasion. Fined $100,000. Other charges dismissed</td>
</tr>
<tr>
<td>Chi Mak</td>
<td>Power Paragon (L3 Communications)</td>
<td>1970s-2005</td>
<td>PRC illegal send to the US. Stole technical documents, reports, schematics, and conference papers on naval technologies. Five other co-conspirators involved. Found guilty of two counts of attempting to violate export control laws, failing to register as an agent of a foreign government and making false statements to federal investigators. Sentenced to 24 years.</td>
</tr>
<tr>
<td>Dofung Chung</td>
<td>Rockwell &amp; Boeing</td>
<td>1979-2006</td>
<td>Chung provided technical information on many US military and space systems to PRC. Sentenced to 15 years and 8 months.</td>
</tr>
<tr>
<td>Kendall &amp; Gwendolyn Myers</td>
<td>Department of State</td>
<td>1979-2009</td>
<td>Passed to Cuban intelligence US policy and some intelligence information related to Cuba. Kendall was sentenced to life in 2010; Gwendolyn to a minimum of 6 years.</td>
</tr>
</tbody>
</table>

Examining Espionage

Analysis of the many espionage cases against the US provides some useful insights. From 1945 to 2014, 748 individuals have been identified as involved in espionage-related activities. There has been a spike in the number of cases since 2002: one hundred and

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50 “Chi Mak acknowledged that he had been placed in the United States more than 20 years earlier, in order to burrow into the defense-industrial establishment to steal secrets. It speaks of deep patience and is part of a pattern.” — Joel Brenner, former National Counterintelligence Executive (SpyPedia, www.spypedia.net).

51 As of October 2014.
sixty individuals associated with Soviet or Russian espionage, most involved in national security-related spying; individuals associated with China in the same period total 140, most involved in economic espionage against American (as well as other Western) companies. Iran is the nation most active in technology diversion with 126 individuals identified. These compare with only 49 domestic economic espionage cases – i.e., US Company xyz illegally spying on its competitors.

Since WWII, less than half of the American spies were recruited by a foreign intelligence service. Forty-three percent were recruited by family members, friends, or co-workers. Only 9.8% of compromises of classified information were by contractors; the majority (90.2%) were by government employees. Background investigations have never caught a spy, but serve as a deterrent.

From a counterintelligence perspective, leaks of classified information to the press are akin to a spy stealing information. The only difference is that in a leak case, the US Government knows the information has been compromised and can take corrective actions, while in an espionage case, the Government does not know information has been compromised until the spy is caught and prosecuted and submits to damage assessment interviews. And even then, not all compromised secrets are discovered.

In his book, Michael Sulick identifies the motivations of spies over the years. These motivations include “money, ego, revenge, romance, simple thrills, ideological sympathy, and dual loyalties.” In the 1930s and 40s, ideology played the major role. In later years, financial needs were more prevalent and too often downplayed after capture. In the vast majority of the cases, more than one motivation was in play. A study of motivation revealed it is a complex problem with no simple answers. As Dr. David Charney states, the motivation to spy often relates to “a profound fear of failure as personally defined by that individual.” History does confirm that individuals who decide to spy are usually going through a life crisis and are unhappy people when they make that irreversible decision.

The Future

Russian spying against America today is at a level comparable to the height of the Cold War. Little, however, is conducted out of Russian embassies. As in the 1930s, the Russians appear to be relying on illegals, identified in the US, Canada, Portugal, Germany, and Estonia. Illegals provide an advantage of being harder to uncover than embassy-based

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52 This analysis of spy cases is based on the comprehensive case files in SpyPedia, a database maintained by the CiCentre and available under subscription.


56 In 2010 a SVR network of long-term illegals was broken up with the arrest of 10 of its 12 members by the FBI. (“FBI Breaks up alleged Russian spy ring in deep cover,” The Guardian, 28 June 2010.)
intelligence officers and their contacts; in cells more difficult to penetrate; and provide political distance for the sponsoring country. Use of undercover paramilitary intelligence officers (Spetznaz) has been demonstrated in Russia’s seizure of the Crimea and support of separatist rebels in eastern Ukraine. Several GRU officers have been identified as involved in these Russian provocations as were others in Russia’s actions against its neighbors Georgia and Estonia, which continue today.

In recent years, Chinese spying has become very aggressive and economic-related. One hundred and twenty-three agents of China have been identified since 2003, which indicates that US CI is getting better at recognizing China’s methods of espionage, which employ a long-term view of espionage. They recruit young people who are encouraged to seek jobs, which will grow into positions lucrative for espionage. Universities are prime targets for these “seedling” recruitments.

The information age has made it easier to spy and to filch vast quantities of sensitive data. The threat comes from several directions: remotely through Internet probing and phishing; the insider who downloads sensitive data or installs malware that automatically exfiltrates data; and increasingly from embedded malware installed in the manufacturing process.

China, Russia, and Iran are aggressive cyber attackers. CI experts are learning how to exploit the digital trail left by today's digital exploitation spies.

Analysis of public information reveals that 35% of all corporate economic espionage cases involving the theft of information technology is by company insiders, most of whom are foreign nationals (or have dual loyalties). Inside access is often coupled with external

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57 In the late 1980s Russian President Vladimir Putin was a KGB officer in Dresden (then East Germany) supporting the KGB Directorate S, responsible for identifying, training, and operating illegals in other countries.

58 In 2012 five individuals, 2 of whom were former employees, were charged with economic espionage, theft of trade secrets and other federal crimes for stealing DuPont's formula for titanium dioxide, an essential ingredient for paints and coatings, and providing it to a Chinese company seeking to compete in the $12 billion worldwide market. (DuPont Hit by Chinese TiO2 Spy Ring,” Paint and Coatings Industry News, February 16, 2012). http://www.paintsquare.com/news/?fuseaction=view&id=7193)

59 Former FBI China counterintelligence analyst Paul Moore described this historic Chinese approach to espionage as “a thousand grains of sand.” (Wise, Tiger Trap, p 9-10.) China collects 80% of its intelligence through open sources. Over 4,000 entities in China collect intelligence. “Chinese intelligence [has] flooded America with students, scientists, businesspeople, and emigrés from all walks of life to harvest America’s political, military, economic, and scientific secrets.” (Sulick (2013) p 270.) In 2004, for example, there were 100,000 Chinese students in the US for higher education and 27,000 official delegations visiting facilities in the US. Chinese intelligence exploits the overseas Chinese population. “In Chinese culture, when people receive favors, they are expected to reciprocate, a deeply rooted tradition known as guanxi.” (Wise, Tiger Trap, p 56.) This method has been used to entrap ethnic Chinese into espionage, often under the motivation of helping the homeland.


61 Phishing is the attempt to steal sensitive information by masquerading as a trusted correspondent in an email. (Zulfikar Ramzan, "Phishing Attacks and Countermeasures," in Mark Stamp and Peter Stavroulakis (eds.), Handbook of Information and Communication Security, New York: Springer (2010)).


63 Based on public records related to individuals indicted for espionage and related activities.
cyber-attacks. Failure of companies to monitor access to sensitive information has allowed insiders to surreptitiously work for competitors or their home country. Refusal to recognize the danger has caused corporations to delay securing their networks or instituting countermeasures. China has gained access to vast amounts of proprietary information using these methods.64

Analysis of Justice Department information indicates that espionage is risky -- spies get caught, although often not for many years.65 Thirty-two percent of spies are either intercepted before they can steal information or within a year of beginning. Another 25% are caught within five years, and an additional 20% within ten. American justice tends to treat spies harshly when compared to Western European countries (but not totalitarian nations). While only the Rosenbergs were executed, of the 217 apprehended spies who have compromised classified national defense information and been prosecuted, 25 received life sentences; another 17 thirty-to-forty years; and 58 twelve-or-more years.

Espionage is as old as human society and will be with us forever. Economic espionage will continue for the same reasons it has been around for so long -- it is profitable. Why invent or invest when you can steal? Attempts to divert restricted technology to get around economic and trade sanctions will continue since the benefits outweigh the risks. The reality of espionage is that constant vigilance is essential. The US cannot afford to allow its CI capability to languish. History has taught us that in the "spy catching business" the old adage of "pay me now or pay me later" is very true because nations pay a high price when espionage is successful.

### Readings for Instructors

Besides many of the citations in the footnotes the following are recommended as illuminating treatises on espionage.


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64 Written testimony of David Major to the House Committee on Science, Space and Technology, Subcommittee on Oversight, May 16, 2013. http://fas.org/irp/congress/2013_hr/fedlab.pdf


**Authors**

David Major, a graduate of Syracuse University, served for 5 years in the US Army before being appointed as an FBI Special Agent. During his 24 year FBI career he served in numerous field offices as well as FBI Headquarters in the SCI Security Office, the Counterintelligence Division, and the Inspection Division. He was the first FBI special agent detailed to the White House National Security Council under the Reagan administration. He worked foreign counterintelligence his entire career. Mr. Major has made a life-long commitment to the study of counterintelligence and counterterrorism, making him one of the nation’s top experts on the subject. Upon retiring from the FBI, he founded the Centre for Counterintelligence and Security Studies, known as the CI Centre, which has provided counterintelligence, counterterrorism and security training for over 100,000 people in both government and the corporate sector. He is a member of the board of AFIO, a national association of former intelligence officers.
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Peter Oleson is an associate professor in the graduate school of the University of Maryland University College. Formerly he was an assistant director of the Defense Intelligence Agency and senior intelligence policy advisor to the Under Secretary of Defense for Policy. He was president of a consulting firm specializing in technology and program management for intelligence systems. He is also a member of the board of AFIO.