

Wen Ho Lee Case Study¹

In the 1990s as the Clinton administration sought to expand diplomatic and trade relations with China, Chinese espionage against US technology targets—especially nuclear weapons data at national laboratories—was getting widespread publicity in the media. As charges and counter-charges floated in the air, scientists at Los Alamos National Laboratory (LANL) who were studying Chinese nuclear tests concluded that a 1992 test demonstrated a sudden advance in miniaturization of the country’s nuclear warheads. They argued that the warhead was very similar to the United States’ most advanced weapon, the W-88. With this advance, the Chinese had access to the technology that provided the basis of a modern, nuclear force. Robert M. Henson, a weapons designer at LANL, believed that the only way the Chinese could have made such advances was by stealing US secrets. Henson’s view was seconded by John L. Richter, a bomb designer who specialized in creating the trigger for the hydrogen bomb. He argued that the sketchy evidence available pointed to the Chinese having acquired significant data on the trigger in the W-88. Investigators believed that the theft of the W-88 data from the national laboratories occurred in the 1980s, and that there was evidence of ongoing Chinese espionage at the increasingly open national labs in the 1990s.

Counterintelligence officials report that China is aggressive at collecting information on US advanced technology. Beijing employs both soft and mostly legal as well as classic, hard-spying techniques to gain access to critical information. While the Chinese approach all scientists, they focus on ethnic Chinese, both from the mainland and from Taiwan. The Chinese informally collect tidbits from individuals in social settings, from Chinese visitors to US National Laboratories and industrial sites, from scientific papers, and from Chinese students. In addition, Chinese intelligence officials approach scientists traveling in China or attending scientific conferences. Beijing also employs classic spying techniques, recruiting spies and running double agent operations.

The DOE Investigation: the *Kindred Spirit* Case

The case against Wen Ho Lee began in 1995 after a critical piece of nuclear weapons intelligence came to the attention of Notra Trulock, director of intelligence at the Department of Energy

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(DOE). Henson shared with Trulock his concerns that China may have stolen nuclear secrets from the United States in the mid-1980s. In Summer 1995, DOE launched an assessment of China's nuclear weapons program. While the team was working this issue, they learned that an individual from mainland China had voluntarily provided classified Chinese documents to the CIA. One document that attracted a lot of attention was a 70-page paper that contained crude pictures, along with weights and measurements, of a variety of US weapons, including a sketch of the W-88 warhead that described the outer measurements of the casing for the nuclear trigger. The sketch, however, contained design flaws that would have been added after the Los Alamos involvement.

Some knowledgeable scientists believed that the Chinese did not need to steal the data. They argued that as much as 99 percent of the data needed to build a weapon similar to the W-88 was available on the Internet. There was also a possibility that China might have obtained the technology from another country, such as Russia. Following the demise of the Soviet Union, many Russian nuclear experts were marketing their skills around the world.

KSAG concluded that the Chinese weapons program had been aided by espionage. Trulock believed that a spy at one of the National Defense laboratories had passed the design keys to the W-88 nuclear warhead to the Chinese. In November 1995, he launched an Administrative Inquiry (AI) named *Kindred Spirit* to identify individuals within DOE who might have passed US nuclear secrets to the Chinese. Trulock assembled a team, the *Kindred Spirit Analytical Group* (KSAG) that found the nuclear trigger ("primary") of the Chinese weapon was very similar in size and shape to that of the US W-88 warhead—one of the most sophisticated weapons in the US arsenal. The investigators were guided by three criteria for identifying suspects:

- Individuals who had traveled to China between 1984 and 1988 (the period after final approval of the W-88 design and before the walk-in document).
- Individuals with clearance to work with top secret nuclear weapons data.
- Individuals who dealt with visiting delegations from China.

The investigators identified 12 individuals at LANL who met all three criteria and honed in on one individual, Wen Ho Lee, a nuclear weapons specialist. Some officials would later question the list as inconsistent and unreliable. For example, it included only those individuals whose travel expenses were paid by DOE, three individuals who had no access to classified data, and one with no clearance.

In May 1996, DOE submitted its report to the FBI, naming Wen Ho Lee and his wife, Sylvia, as the most logical suspects. It claimed that Lee had opportunity, motive, and legitimate access. He had traveled to China in 1986 and 1988, with DOE approval, to attend scientific conferences, and he had access to classified nuclear documents at LANL. He and Sylvia had met visiting Chinese delegations frequently, she eagerly acted as an interpreter for the Chinese visitors, and she accompanied Lee on his two trips to China.

Wen Ho Lee's Background

Wen Ho Lee was born in Nantou, Taiwan on 21 December 1939. He came to the United States in 1964, became a citizen in 1974, earned a Ph.D. in mechanical engineering in 1970, and was hired by Los Alamos as a research mathematician in 1978. In 1980, he joined X Division, where nuclear weapons are designed. He developed computer programs in nuclear weapons design and nuclear test simulations and archived any related information developed.

When Lee traveled to China in the 1980s, he met with Dr. Hu Side in a Beijing hotel room. Dr. Hu was head of the Chinese Academy of Engineering Physics—the Chinese bomb makers—and the designer of the two-point nuclear bomb trigger. At the meeting, Dr. Hu asked Lee how to make a smaller hydrogen bomb using an oval-shaped fuel. Later Lee said that he did not answer the question.

During the 1980s, Wen Ho Lee became an FBI informant. He reportedly provided useful information on at least one case under investigation. His wife, Sylvia Lee, was invited to speak at a Beijing conference on sophisticated computers, even though she was only a secretary. In 1987, she became an informant to the FBI on the Chinese delegations she met with at LANL. She also served as a source for the CIA. During these years, there was no significant change in the life style of Wen Ho Lee or his wife.

In 1994, Wen Ho Lee attended a party at Los Alamos for visiting Chinese scientists, even though he was not on the invitation list. During the party, Dr. Hu Side greeted Lee warmly. Some sources report that Dr. Hu hugged Lee. According to a translator at the party, Hu thanked Lee for computer software and calculations on hydrodynamics he had supplied. Dr. Hu added that the information aided China greatly.

The FBI Investigation

In May 1996 the FBI opened an investigation based on DOE's Administrative Inquiry. With a full case load, the local agent had only limited time to devote to *Kindred Spirit*. As a result, no agent worked full-time on the case.

In April 1997, Lee submitted a standard request to hire a post-doctoral researcher who happened to be a Chinese citizen. This spurred the FBI to request an electronic surveillance warrant under

FISA in order to monitor Lee's contacts with his graduate student. The Department of Justice denied the FBI request, citing a lack of "probable cause" that Lee was a spy.

Little progress was made on the investigation in 1997 and 1998. The case resurfaced in 1998 when the House of Representatives conducted hearings on Chinese nuclear activities.

Republicans charged that the Clinton White House was downplaying Chinese spying because it conflicted with the administration's drive for greater strategic and commercial partnership with Beijing.

A special House Committee, headed by Representative Christopher Cox held hearings on the transfer of technology to China, focusing on suspected Chinese nuclear espionage. Trulock testified before that committee in November 1998 that the Chinese had stolen the design of the W-88. In December, the FBI told the Committee that the Chinese had probably penetrated US weapons laboratories and that a suspected spy was still unexposed at LANL with his security clearances unchanged.

Polygraph Results and the Missing Computer Files

Press reports on Chinese nuclear espionage at the national laboratories began leaking from the Cox Committee in December 1998 and continued into early 1999. DOE decided to interview and polygraph Lee after his return from Taiwan in late December. During the December interview, Lee admitted that he had met two Chinese scientists interested in miniaturized nuclear bombs in his hotel room during a visit to Beijing in 1988. He claimed that he told the Chinese that he didn't know the answer and refused to discuss the issue with them. When asked why he did not report the meeting at the time, Lee said he forgot. After this meeting, Lee made several attempts to enter X Division, including a visit to the laboratory at 3:30 AM on Christmas Eve.

Meanwhile, FBI and DOE forensic specialists discovered that Lee had transferred a large number of files from a classified to an unclassified part of LANL's computer system. According to press reports, Lee maintained that he had been instructed to archive bomb data. Lee had begun the transfers as early as 1988, but made the bulk of them in 1993 and 1994. Lee told a fellow scientist at Los Alamos that he needed to transfer the files from a classified computer to an unclassified computer because the classified computer did not have tape drives and he could not download files directly from them.

In 1993 Lee learned that he might be laid off from LANL due to budget cuts. Investigators later found seven letters dated 1993 and 1994 on Lee's home computer, addressed to universities and institutes, inquiring about job prospects, but there was no evidence that the letters had been mailed.

The FBI discovered that Lee had downloaded on to tapes all the files he had transferred. Lee denied making the tapes, but when confronted with the list admitted that tapes had been made. He denied any criminal intent in making the tapes. It took nearly 40 hours over 70 days to

transfer the files. Lee, however, did not download any user manuals for the computer codes. He left some files on the open system for as long as six years. When LANL computer experts looked for the files, however, they found Lee had deleted them. In all, he deleted 360 files - some 800 megabytes or 450,000 pages of data. FBI agents found materials in his office desk that included handwritten Chinese-language notes on how to download codes used to develop various nuclear weapons, including the W-88. But there was no evidence that Lee had passed or tried to pass any classified national security information to China.

The FBI was able to recover three of the 10 tapes Lee had created. Lee told the FBI that he had destroyed the rest. He gave no explanation of why he had made the tapes, or why and how he had disposed of them. He denied taking them home.

The FBI determined that Lee had downloaded almost all of LANL's nuclear weapons source codes and other files which together provided the means for computer simulated tests of nuclear weapons. Substantial amounts of the material were categorized as PARD which stands for Protect as Restricted Data. Such data is controlled, but a determination has not been made yet as to whether it is classified. PARD is often applied to large volumes of data such as computer printouts, much of which is unclassified. During Lee's investigation, some of the PARD material was later reclassified as a Confidential and Secret.

DoE had also polygraphed Lee and cleared him, but FBI specialists discovered problems with the polygraph and questioned its results. In February Lee underwent another FBI polygraph interview, which he failed. The FBI stepped up its investigation in March when it learned that the New York Times was preparing an article about an espionage investigation involving an unidentified LANL scientist. The FBI interviewed Lee, who consented to a search of his office computers, but not to a search of his home.

The New York Times Article

The New York Times article on March 6, 1999 reported that nuclear secrets stolen from a US government laboratory had enabled China to make a leap in nuclear weapons development: the miniaturization of its bombs. It said there was a suspect, a Chinese-American scientist at Los Alamos. It cited comments by unidentified officials that the White House had minimized the espionage investigation for political reasons.

Once the case against Wen Ho Lee surfaced publicly, his defenders charged that he was singled out for investigation because he was ethnic Chinese. His defense lawyers charged racial profiling, noting there was no evidence that Lee had passed data to the Chinese; nor was there any proof of theft.

On Monday, March 8, 1999 Lee was fired after nearly 20 years at LANL on orders of Secretary of Energy Richardson. Richardson ordered a tightening of security at all the national laboratories, reinstating background checks for foreign scientists visiting the laboratories from

sensitive countries. On December 10, 1999 Lee was indicted on 59 counts of illegally removing highly classified information from LANL. He was jailed in January and ultimately pled guilty to one count of mishandling a controlled document. The judge sentenced Lee to time served, and he was released from prison in September 2000.