

cash in again can be irresistible. When Pitts saw the envelope with the \$15,000 in it, he fell hard.

- The FBI failed to pick up on what should have been a clear counterintelligence signal. In its debriefings of Pitts, the FBI learned that the SVR seem uninterested in exploiting Pitts's access to the fullest. Granted, his access to classified information had declined, but he was still an FBI special agent. It was counterintuitive that the SVR would underutilize and eventually deactivate any FBI penetration—unless it had something better. The FBI should have reinvigorated its in-house CI investigation.

## Chi Mak

I forgive those who murder and steal because they did it out of necessity, but a traitor never.

—Emiliano Zapata

Chinese intelligence operations against the United States are effective, but they are sometimes prone to one of the cardinal sins of espionage: predictability. Every US counterintelligence specialist should study the Chi Mak case because it provides a template of how the Chinese intelligence services like to operate against the US high technology target. Their chosen method works, so they do the same thing repeatedly: they dispatch Chinese scientists, engineers, and students to the US in the hope that they can eventually acquire US citizenship, gain employment in the government or high technology sector, obtain a security clearance, and then, when all goes well, get access to classified or proprietary information of value to China. Knowing how the Chinese are stealing our technology is one thing; stopping it is another. The onslaught of Chinese spying is so massive that it overwhelms US counterintelligence capabilities and resources. We should never underestimate what is going on. We pat ourselves on the back when we catch a Chi Mak, but the crucial question remains unanswered: How many other Chinese spies like Chi Mak are out there right now operating against us with impunity? My guess is dozens, if not hundreds.

Chi Mak was born in China in 1940 and moved to Hong Kong in the 1960s. There is speculation, but no proof, that he was already working for Chinese intelligence before he moved to Hong Kong. After establishing

himself in Hong Kong, Chi immigrated to the United States in the late 1970s. Was this part of a master plan? Did Chinese intelligence believe that Chi could more easily immigrate to the US from a British colony than from Communist China? The FBI later determined that Chi had lied on his immigration application forms. What was he hiding? At his trial Chi admitted that he had been dispatched to the US with the mission of “burrowing in” to US high technology.

After five years of residence in the US, Chi became a naturalized American citizen in 1985. In 1988 he began working as an electrical engineer for the defense contractor firm Power Paragon of Anaheim, California. Power Paragon is a company that focuses on the research and development of advanced propulsion systems and other sensitive technologies for US Navy submarines and surface ships. Chi quickly gained the reputation of being a quiet, hardworking, unassuming, and brilliant engineer. It is puzzling from a CI standpoint that a recently naturalized Chinese American was working for a company like Power Paragon, but Chi was presumably not involved in the most sensitive projects there because his secret US government security clearance did not come through until 1996. If Chi's path to access was orchestrated by Chinese intelligence as far back as the late 1970s, as I believe it was, his handling by his case officer was brilliant and remarkably patient. Chi Mak had successfully maneuvered himself into a fantastic position to serve his Chinese masters.

When I was chief of counterintelligence at the CIA in the early 1990s, I sometimes briefed CIA and defense contractor firms on counterintelligence threats. I recall going to one company in California where I met with the director of security, a friend and former CI colleague. I asked him a question that I knew was politically incorrect but that made sense for a counterintelligence officer: “How many of your engineers with access to our sensitive programs are naturalized US citizens born in China?” I was shocked by his answer of hundreds. He saw my reaction and said, “Jim, I know what you're thinking. It is terrible CI. But what would you have us do? We need engineers, and when we go to the best engineering schools to recruit them, what do we find? Chinese.”

Power Paragon was a damaging place for a Chinese spy to be. Delivering sensitive US Navy technologies to the Chinese could change the strategic balance in East Asia. With Chi Mak's help, the Chinese navy could accelerate its modernization program and present a more menacing challenge to US Navy forces in the region. Chi was collecting and delivering

huge quantities of sensitive US Navy technical data to China. There were no security procedures in place at Power Paragon to prevent him from doing that.

Something happened in 2003. From an unknown source or sources, the FBI became aware that sensitive US Navy technology was being leaked from Power Paragon to the Chinese. The FBI and the Naval Criminal Investigative Service (NCIS) opened a counterintelligence investigation and soon zeroed in on Chi Mak as the prime suspect.<sup>4</sup> They threw tremendous resources into the investigation. After obtaining the proper warrants, they conducted physical and photographic surveillance of Chi, tapped his home and office phones, examined his financial and travel records, and went through his trash. The trash cover was a long and filthy job, but it finally paid off when the NCIS investigators retrieved a torn-up requirements list from Chi's Chinese intelligence handler. Another torn-up piece of paper contained instructions on how Chi should attend scientific conferences, elicit information from attendees, and scoop up any available documents. There was no doubt that both notes were intelligence related. This was potent evidence, but clearly not enough. How to get more was the problem.

The surveillance coverage of Chi and his wife, Rebecca Liu, revealed that they lived frugally in a small home and rarely went out, other than to visit Chi's younger brother, Tai Mak, and his wife, Fuk Li. Rebecca had assimilated little into American life and spoke minimal English. Chi and Rebecca took their cheapness to ridiculous extremes; they ate their meals on newspapers, used gas station squeegees to wash their car, and went regularly to a lumber yard to drink the free coffee. According to all appearances, they were leading a sad and lonely life devoid of any excitement. There were no signs of gambling, drinking, carousing, or any form of lavish spending.

The FBI and NCIS desperately wanted to get a look inside Chi and Rebecca's home, but Rebecca rarely left the house. The big break came in September 2004, when the Maks took a trip to Alaska. Could this possibly be an operational trip? It apparently was not because the surveillance team that went with them noticed nothing unusual. The Alaska trip provided the long-awaited opportunity for the investigative team to do a surreptitious entry of the Maks' home.<sup>5</sup> The investigators pulled it off beautifully; they got in and out without being detected by nosy neighbors, joggers, or dogs. What they found was shocking: piles and piles of technical documents from Power Paragon, stacked in every corner. Chi was a pack rat. He was

storing some 40,000 pages of work-related documents in his home. The documents were not highly classified, but many were export controlled and for official use only. Chi was in flagrant violation of company rules that forbid taking documents of this kind out of the office. The entry team noted that the Maks were poor housekeepers; there was dust everywhere in the house, and moving and photographing everything without leaving marks in the dust was difficult.

The FBI and NCIS knew they were on the right track. Something illegal was definitely going on inside that house. They obtained a warrant for a second surreptitious entry, this time to install concealed cameras and listening devices. The payoff came quickly. Chi and Rebecca were observed working at their kitchen table transferring paper documents onto a CD. Separately, the phone tap on the house picked up conversations between Chi and his brother, Tai, about a trip the latter was planning to take to China with his wife. The tap on Tai's phone added the information that Tai promised to deliver something important to Pei-liang Pu, presumably an intelligence officer, when Tai arrived in China.

It was easy to put this all together. Chi had acquired something important to pass to the Chinese, and Tai was his courier. The investigators could not know for sure what was on the CD but feared that it might involve highly sensitive technology to mask the acoustic signature of US nuclear submarines, something Chi had been working on at Power Paragon. The imperative of preventing what would be a devastating loss to US Navy security forced the team to act. Tai Mak and his wife, Fuk Li, were arrested on October 28, 2005, at Los Angeles International Airport as they were about to board a flight to China. Chi Mak and his wife, Rebecca Liu, were arrested at their home the same day. Under interrogation Chi confessed to having committed espionage.

The prosecution was not a slam dunk. The defense argued that the documents were not highly classified and some were even available to the public. It contended that Chi's prosecution was based on racism and xenophobia and that he had been singled out as a scapegoat for the government's failure to win convictions in other Chinese cases. Chi's confession to NCIS interrogators was damning, but it was essentially useless in court because the NCIS agents had failed to record it, an unimaginable lapse on their part.

Power Paragon itself seemed to line up on the side of the defense. An internal compliance officer for the company testified that no sensitive information had been compromised. A Power Paragon engineer stated

that the materials Chi Mak passed did not contain “anything that couldn’t be found in graduate-level textbooks.” The prosecutors countered that this testimony was intended to protect the company’s reputation and interests. If, they said, it became known that Power Paragon practiced weak internal security and handled sensitive information in a careless manner, it could lose the military contracts on which its business depended.

On May 10, 2007, Chi Mak was convicted of conspiring to violate export control laws, acting as an unregistered foreign agent, and making false statements to the FBI. He was sentenced to twenty-four and a half years in prison and a \$50,000 fine. The judge said that he meant the sentence to be a warning to China to stop sending agents to the United States to steal our military technology. The following month Tai and Rebecca pleaded guilty to conspiracy and failure to register as foreign agents. Tai Mak was sentenced to ten years in prison and Rebecca to three years. The members of the ring were informed that they would be deported to China after they served their time.

#### LESSONS LEARNED

- The Chi Mak case highlights the importance of applying good workplace counterintelligence to defense contractors as well as to government employees. Security in US high technology contractor companies has been notoriously bad. The FBI, DOD, and CIA have programs dedicated to educating company employees and enforcing proper security procedures, but they cannot control what happens once they leave. It is probably an overgeneralization, but one I stand by, that scientists are often oblivious to security. They live in a world where other scientists in their field, regardless of nationality, are assumed to be friendly. Sharing research data is what good scientists do. Counterintelligence officers should never assume that scientists or, by extension, engineers have even a basic understanding of how espionage targeting works.
- The efforts of the Chinese intelligence services to send Chinese emigrants or recruit immigrants for espionage are pervasive. Their number one target without question is US military-related high technology. It would be ignoring the obvious and, in my opinion, a dereliction of duty for a counterintelligence professional to treat all national security employees the same. Chinese Americans who work in national security, particularly those born on the mainland,

require additional CI scrutiny given how China’s intelligence services operate.

- I liked how the FBI and NCIS worked together on the Chi Mak case. They were the furthest thing from parochial. Their cooperation, sharing of information, and mutual respect were exemplary.
- Go for a surreptitious entry as early in a CI investigation as possible. Once the evidence is sufficient to obtain FISA approval, consider going in. Do not give the suspect the chance to determine that he or she is under surveillance or being investigated and then to destroy the evidence. Get what you can as soon as you can. There is more than likely a smoking gun in there somewhere.
- I hate to say it, but NCIS bungled the initial interrogation of Chi Mak. The first confrontational meeting with any suspect in a CI case, before or after arrest, must be meticulously planned. Investigators, prosecutors, and even psychologists should participate in the planning. Under no circumstances should an interview take place without videotaping and recording. Every CI team has a member who is particularly adept at conducting interviews of this kind—and that person should be given the lead. CI interrogations are filled with evidentiary and legal pitfalls and should be handled by experienced personnel only.

#### Ana Montes

My firm belief is that hardly anyone becomes a traitor for money alone.

—Markus Wolf, *Memoirs of a Spymaster*

I am of a mixed mind on ideological conviction. On the one hand, I admire people who are steadfast in their beliefs and are willing to sacrifice everything—perhaps even their lives or their liberty—to further their cause. In my classes at the Bush School, I tell my students that I cannot help but respect Julius and Ethel Rosenberg for their fervent commitment to communism and their readiness to accept death in the electric chair rather than to abjure their beliefs. I do not agree with their cause, of course, but I can still recognize and honor the depth of their conviction.

On the other hand, as a counterintelligence professional, I hate ideological conviction because it makes spies so much harder to catch. Spies