



# Cold War Wizards

IN HIS NEW HISTORY OF CIA GADGETRY,  
RETIRED OFFICER REVEALS SECRET  
TECHNOLOGIES THAT ARMED  
AMERICA'S SPIES

BY CHRIS LAZZARINO

Roy—not his real name—had spent his first decade at the CIA as a “document authenticator” in the secretive Office of Technical Services. He insured that travel and identity documents produced for CIA officers and overseas agents were as flawless as diamonds fit for a queen. Lives depended on his work. After years as a hands-on expert in the shop, Roy was asked by his boss to bring a new guy up to speed.

OK, so Robert Wallace wasn't exactly a new guy. He'd been in the Central Intelligence Agency for nearly 25 years, but as an operations officer, completing three tours as a chief of station—we don't know where. In 1991 he'd been transferred back to Washington to serve as, in his words, a “budget weenie.” Perhaps by the romantic standards of globetrotting spies, budget managers are weenies; in reality, within a highly compartmentalized organization like the CIA, budget oversight means unique access to other people's business.

So it's almost certain that Bob Wallace, g'68, knew a lot more about the CIA than Roy did. What he did not know was the technical side of the intelligence trade, and he had to learn fast.

In August 1994, a new deputy director for operations, David Cohen, had asked Wallace to apply for a vacant job as deputy director of the Office of Technical Services. As Wallace reveals in his thrilling new book, *Spycraft: The Secret History of the CIA's Spys techs from Communism to Al-Qaeda*, he privately worried that he might as well have applied for NASA's astronaut corps.

“I'm an analog guy in a digital world,” Wallace told Cohen. “I don't even change the oil in my car.”

Cohen insisted, citing both Wallace's field and management experience and, after two years poring over budgets, his rare familiarity with the agency's diverse personnel and missions. In short, Wallace could talk the talk with the trench-coat crowd that didn't mingle much with the tech guys, and he could do so on a first-name basis.

Six weeks later, the transfer approved,

Wallace joined the CIA's insular world of technical marvels, and, in that initial cram session, Roy exposed elements of tradecraft that Wallace had overlooked and underappreciated for his entire career. Starting at the same pop-culture reference point that Wallace now uses to introduce *Spycraft* to neophytes, Roy explained that OTS is akin to the fictional "Q," the gadget guru who outfits James Bond.

Except that the real-world American "Q" is more than one brilliant fustbudget. OTS, Roy told Wallace, comprises discreet teams of engineers, scientists, technicians, craftsmen, artists and social scientists, working all over the world with operations officers and even their secret agents. They do not stand around in lab coats, handing over the keys to tricked-out Aston Martins or unveiling gadgets that go boom and bang. Instead, they fret over how to gather and deliver information.

Batteries utterly thrill them. The chase for more power with longer duration from a smaller source keeps them up at night. Subminiature cameras that operate quietly and efficiently enough to allow a Soviet agent to risk his life while photographing purloined documents in an office toilet stall can, and did, change the course of Cold War destinies.

They are a tight tribe renowned, at least among themselves, for good humor: A crest from 1966 features a MAD magazine spy buffoon over the motto, "Stand By To Bug." After each new episode of "Mission: Impossible" aired the night before on TV, techs were ready the next morning to patiently field phone calls from case officers asking, "Can OTS do that?"

In the mid-1970s CIA spytechs created what was essentially the first text messaging system—newly detailed in *Spycraft*—so the invaluable Soviet agent Demitry Polyakov could send bursts of information, and receive a confirmation of receipt, while strolling Moscow streets. Executed by the KGB in 1986, Gen. Polyakov was betrayed not by technology, but by the now-infamous moles Robert Hanssen, of the FBI,

and the CIA's Aldrich Ames.

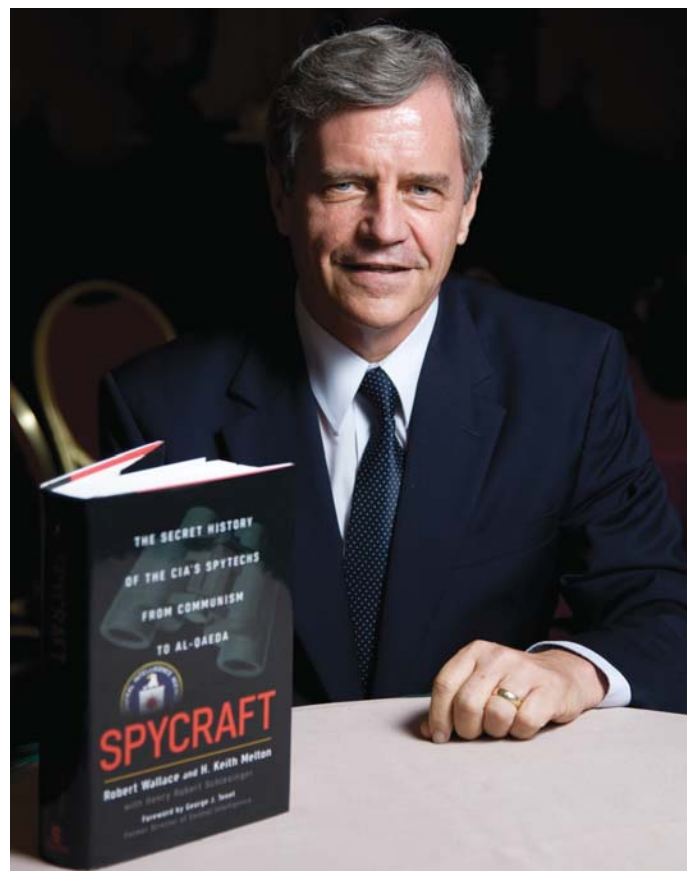
Some spytechs are out in the field half the year, and they take pride in patronizing seedy hotels the world over so they can pile up per diem profits. They worry about things like paint. Microphones hidden in tiny holes drilled in walls, baseboards or ceilings must be perfectly concealed, and a random jar of paint from a D.C. hardware store won't do the trick on telltale scars left on a mildewed wall in another hemisphere.

Their institutional history reaches back to the CIA's formative years, in World War II; their ingenuity played critical roles in every success enjoyed by American intelligence services ever since, most notably in the high-stakes Cold War with the Soviet Union. And, like the case officers celebrated by spy novelists and A-list movie stars, they put their lives and freedom on the line.

Among the countless thrillers Wallace reveals—with the hard-won blessing of the CIA's Publications Review Board—is the saga of three OTS officers captured in September 1960 while attempting to plant bugs in the ceiling of the New China News Agency's Havana bureau. They had entered Cuba with false identities as American businessmen, and hoped to plant listening devices within "the future embassy of a critical hard-target country." (With the exception of Moscow operations, Wallace identifies few foreign locales by name; along with a few pseudonyms, all listed in endnotes, these vague geographical references are among the few factual details the book overtly obscures.)

But the rare intelligence opportunity fizzled when a property manager working on their behalf backed out, meaning the CIA tech team could not gain entry.

They instead turned to a second target, the Chinese news office, and were discovered and arrested during a long, tense weekend of around-the-clock work. Still maintaining their cover identities despite countless interrogations, the three were convicted in December 1960 and sentenced to 10 years in prison.



■ *Spycraft: The Secret History of the CIA's Spytechs from Communism to Al-Qaeda*  
By Robert Wallace (above) and H. Keith Melton,  
with Henry Robert Schlesinger  
Dutton, \$29.95

"When you came back from your trial, you either went to the left or the right," engineer Thornton "Andy" Anderson told Wallace and his co-author, intelligence historian H. Keith Melton. "If you went to the right, you went into a *copiea*, a little chapel-like room, and you knew you were going to be shot the next morning. ... I realized that by making the left turn we weren't going to be shot."

Instead, they were transferred to the Isle of Pines, a few miles off the coast and described by Wallace as “perhaps the most dreaded of all Cuban prisons.” And there they remained, in squalid conditions, as relations between the United States and Cuba sank into the abyss. After 949 days of captivity, the Americans were flown to Miami as part of a prisoner exchange, their cover identities still intact.

In 1979, 16 years after their return, Anderson, Dave Christ and Walter Szuminski were awarded the Distinguished Intelligence Cross, the agency’s highest honor and a commendation granted, up to that time, only seven times in the CIA’s 33-year history.

“Unlike the movies,” Roy told Wallace, as recounted in *Spycraft*, “if one of our visas doesn’t pass muster at an immigration checkpoint, or one of our concealments accidentally opens and spills its contents, we can’t reshoot the scene. If people are arrested or get killed because of our mistakes, they stay in jail for a long time or they really die.”

Roy continued: “Usually we are right there with the case officer or the agent, at the user’s side of the operation. We train agents, install equipment, test systems, and repair stuff that breaks. We take the same risks as case officers—share the same emotion of accomplishment or otherwise.”

Wallace, a career operations officer, soon came to identify with the technicians’ sense of tradition, purpose and duty. Late in 1998, four years after resisting the request to become deputy director of OTS, he happily accepted a promotion to director. Soon thereafter Wallace passed a pleasant afternoon with a trusted colleague, retired case officer John Aalto, who had joined the CIA in 1950 and spent the next five decades immersed in the agency’s most classified mission, Soviet operations.

Wallace was surprised to hear the seriousness in Aalto’s voice when Aalto told him, “It is because of the techs ... that we in Soviet operations eventually won the intelligence war against the KGB in Moscow. ... You should do something to

get this story recorded before all of us who were involved are gone and the inevitable organizational changes at CIA obscure this history.”

And so he did.



**B**ob Wallace grew up on a farm near Barnard, in north-central Kansas. His father was a farmer, his grandfather was a farmer, his great-grandfather was a homesteader, and his brother still runs the family farm.

Wallace enrolled at Ottawa University in 1962. After earning his undergraduate degree in history in 1966 he came to KU for a master’s in political science.

“He was one of those ideal students: gentlemanly, nice, hard working, very pleasant,” recalls his adviser, Professor Emeritus Earl Nehring.

Immediately after completing his master’s degree, Wallace was drafted into the army. He was an Army Ranger in Vietnam from January 1969 to January 1970, specializing in harrowing, long-range reconnaissance patrols, about which he offers few details.

“They decided that with a master’s degree, he had way too much education to be a company clerk,” says his former KU roommate and lifelong friend Bill Hall, g’66, PhD’69, professor of political science at Bradley University in Peoria, Ill. “So they stuck a rifle in his hands.”

Stationed at Fort Hood, Texas, while awaiting his army discharge, Wallace found in the post library a book listing career opportunities. Working his way straight down the alphabet, he applied with Abbott Labs, Burlington Northern, the CIA, Data General ...

“I’d like to give you a romantic story,” Wallace says from his home in Virginia, “but there isn’t one. I wrote a couple of dozen letters, and the CIA responded. That was my initial contact.”

But it went nowhere, and he instead took a job with a U.S. Congressman from Ohio. While there he one day met with an office visitor from the CIA; Wallace struck up a conversation, his interest

was renewed, “and from then on that’s how I got associated.”

And that’s where his story goes cold. Wallace does not reveal his duties or postings, except that he worked as a case officer and as chief of three CIA stations before transferring back to Washington in 1991. Hall says Wallace’s children were told their dad worked as a civilian employee for the army, and Hall himself knew little more.

Soon after his 2003 retirement from the CIA, Wallace had dinner with historian Keith Melton, with whom he’d worked on a CIA exhibition of artifacts from Melton’s private collection of espionage equipment. Melton asked whether Wallace had thought about writing a book; recalling John Aalto’s



earlier suggestion, Wallace knew then how he’d spend his retirement.

“When all you have is the official things that are written down,” Wallace says, “you don’t capture the flavor of excitement, the intensity of the time, like people will do if they tell you stories.”

In July 2004, the CIA’s Publications Review Board approved a detailed outline of the co-authors’ proposal, as well as two sample chapters. Dutton agreed to publish the book, and in September 2005 Wallace, Melton and science writer

Henry Robert Schlesinger, who assisted with the narrative structure, delivered a 774-page manuscript to CIA reviewers.

Six months later, the board responded that, except for 34 pages on the early history of CIA spytechs, none of the material could be published. Appeals and further delays continued until July 2007, when the CIA signed off on virtually all of the original manuscript. Former CIA director George Tenet even wrote the foreword.

The result is nothing short of breathtaking. Accounts of derring-do and brilliant innovation, as well as startling KGB surveillance photographs from Melton's collection, are too numerous to detail, but among the most remarkable is the story, told publicly for the first time, of how the CIA cracked a network of lead-shielded, gas-filled cables, buried beneath Moscow streets to deliver data

The tap, planted in a supposedly impenetrable cable underneath a street in the heart of our feared enemy's guarded capital, delivered Soviet secrets until spring 1985. Its unexpected demise was later attributed to a disgruntled former CIA officer named Edward Lee Howard.

Many of *Spycraft's* tales of technical wizardry and creative bravado jerk to a stop with similar treasons, and CKTAW's compromise was the only such betrayal that did not lead to an agent's execution.

"That's what makes traitors so venal," Wallace says. "They're not just giving away the operation, they give away people's lives."

*Spycraft* illuminates espionage's dark chills; even more powerfully, it patiently portrays the spytechs' technical thrills.

We know what to expect when reading John le Carré or watching the latest

is traveling across borders in a different identity. So all this magically appears? No," Wallace says. "There was nothing outside the scope of these technical officers' imaginations, and nothing outside the scope of their capabilities, when it came to applying technology.

"How they were able to adapt, innovate and put together these devices that were absolutely critical, fundamental, to running clandestine operations was just amazing to me."

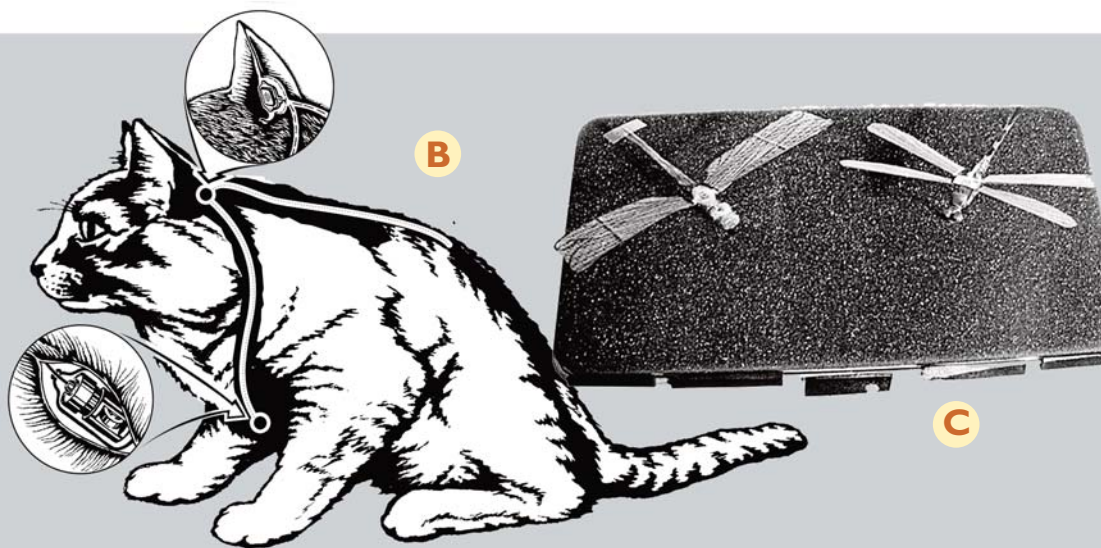
Melton says even spytechs themselves will discover within *Spycraft* secrets to which they were never privy: "Some of them will be reading for the very first time about how their gadgets were utilized. This will be amazing even to those who spent their entire careers there."

For Wallace, the best part about writing *Spycraft* was interviewing retired technicians and officers finally freed to tell

**A.** A brick-and-mortar concealment for passing money, equipment and instructions would be inconspicuous near any construction site. The brick had a pressure-locking mechanism inside the false mortar.

**B.** "Acoustic Kitty" was an attempt to implant a clandestine listening device in a cat, mid-1960s. The critter was fitted with a microphone in the ear canal and an antenna wire along the spine.

**C.** The "Insectohopter," also illustrated on p.32, was an early attempt to build a miniature, unmanned aerial vehicle, disguised as a dragonfly, for intelligence operations, circa 1980.



streams from a weapons laboratory to the Soviet Ministry of Defense.

Five years in the making, Operation CKTAW culminated in 1981 with a successful infiltration by an American technical officer, who narrates the story at length in *Spycraft*. Even his wife and young children played roles in the operation, as the officer ducked away from a seemingly innocent family day trip (hence the need for rucksacks, stuffed not with picnic supplies, but tools and a change of clothes) to complete the job.

Bourne thriller. Risking his life for the mission, a dashing spy will kill a bunch of bad guys, including traitors who try to serve him up to the enemy, and, in the end, the world will be a safer place. Even memoirs and histories written by former CIA officers and outside experts skip the techs.

"Suddenly this agent has this sub-miniature camera, suddenly the case officer is communicating with the agent, suddenly the case officer is in disguise, suddenly the case officer has an alias and

the story of their life's work, and often a spouse or adult children who'd never heard the stories asked to sit in on the conversation.

"I had three reasons to write this book," Wallace says. "I wanted to honor the techs, make a contribution to intelligence literature and, most important, instill confidence in the American public for their intelligence service."

A sentiment with which even grumpy old Q would agree. Even if the Aston comes back a little worse for wear.