

Farewell

*A senior analyst with access to all source
reporting, within the heart of KGB
Headquarters became a spy
for the West, changed the
course of history and
assisted in ending
the Cold War*

By David G. Major

Introduction

This account of the Farewell case is based exclusively on public source materials, and as such it may contain minor factual errors of which the author is unaware, details may still be classified. Nevertheless, what follows is a very close accounting of the significant political implications and operational aspects of this remarkable operation. As such the author is confident that the key aspects of this story have been captured.

Key public sources include:

- Andrew, Christopher and Oleg Gordievsky, *KGB: The Inside Story* (New York: Harper Collins, 1991).
- Kissinger, Henry A., *White House Years*, (Boston: Little, Brown and Co., 1979), 1142.
- Kissinger, Henry A. in Thomas G. Paterson and Dennis Merrill (eds.) *Major Problems in American Foreign Relations*, Volume 11, (1995), 600
- Lesieur, John. "A Former DST Chief Talks," *LExpress*, (May 11, 1990).
- *The Presidents Collection, Reagan, Part II, An American Crusade*, (PBS Home Video, WGBH Educational Foundation, 1998).
- Richelson, Jeffery T., *A Century of Spies; Intelligence in the 20th Century The Cold War and Beyond* (Oxford: Oxford University Press, 1995), 375-378.
- Richelson, Jeffery T., *The Moles: Vladimir L Vetrov: The Murder of Line X*, 48-53.
- Schweizer, Peter, *Victory. The Reagan Administration's Secret Strategy That Hastened the Collapse of the Soviet Union*. (The Atlantic Monthly Press, 1994.)
- "Special Envoy," French TV production aired December 13, 1990.
- United States Government *Soviet Acquisition of the Militarily Significant Western Technology: An Update*, (September 1985).
- Weinstein, Allen and Alexander Vassiliev, *The Haunted Wood & Soviet Espionage in American-the Stalin Era*, (New York: Random House, 1999).
- Weiss, Gus W., *The Farewell Dossier*, undated.

Index

<u>Farewell's Impact On National Security Policy</u>	4
Détente	4
KGB Directorate 'T' Is Established	5
National Security Decision Memorandum 247	7
Origins of Soviet Intelligence Science & Technology Collection	8
Presidential Review Memorandum 31	9
Farewell and US Policy	10
National Security Decision Directive 66	12
Security Decision Directive 75	14
The Strategic Defense Initiative	17
<u>The Farewell Espionage Story</u>	18
Vladimir Ippolitovich Vetrov: The Man	18
Vetrov Volunteers to the French DST	20
The Operation in Moscow	21
The CIA's Supporting Role in the Farewell Operation	22
Farewell's Intelligence Production	23
Vetrov Is Lost	25
Actions by the West After Vetrov is Lost	27
Vetrov's Final Fate	27

"We Communists have to string along the capitalists for a while. We need their credits, their agriculture, and their technology. But we are going to continue massive military programs and by the middle 80's, will be in a position to return to a much more aggressive foreign policy designed to gain the upper hand in our relationship with the West. "

Leonid Brezhnev, remarks to the Politburo
at the beginning of detente.

Farewell's Impact On National Security Policy

During the Cold War (especially in the 1970s), Soviet Intelligence carried out a substantial, successful clandestine effort to obtain technical and scientific knowledge from the West. This effort was suspected by a few US Government officials but was not documented until 1981. In 1981 French Intelligence obtained the services of an S&T analyst, Colonel Vladimir I. Vetrov, code-named "Farewell," who photographed and supplied 2997 highly classified KGB documents. This espionage case led to a formidable counterintelligence response by the FBI, CIA and the NATO intelligence services. The Farewell case provided support for foreign policy initiatives that contributed to the collapse of the Soviet Union, and brought about the end of the Cold War.

Detente

President Richard M. Nixon and Henry Kissinger conceived of detente as a search for ways of easing chronic strains in US-Soviet relation. They sought to engage the USSR in arrangements which would move the superpowers from confrontation to negotiation. Arms control, trade, and investment were the main substantive topics. The Soviets viewed detente as "peaceful coexistence" and as an avenue for improving their inefficient and beleaguered economy by using improved political relations to obtain grain, foreign credits, and technology.

In pure science the Soviets deserved their impressive reputation, and their space program demonstrated originality and accomplishment in rocket engineering. Alternately, Soviet industry lacked the production know-how necessary for long-term competition with the United States. Specifically, Soviet managers had difficulty translating laboratory results into products; quality control was poor, and plants were badly organized. Cost accounting, even in the defense sector, was hopelessly inadequate. In computers and microelectronics the Soviets trailed Western standards by more than a decade.

KGB Directorate T Is Established 1964

In 1963 the "Tenth Department" of First Chief Directorate of the KGB, had been upgraded to the directorate level. This change in status reflected its growing importance and powers. "The Tenth" was known as the "Scientific and Technical Directorate" until 1968. It was then redesignated "Directorate T." In 1970 a high-level governmental review of Directorate T resulted in a resolution passed by the Council of Ministers and the party's Central Committee calling for expansion of the directorate's operations and an improvement in the quality of work.

The State Committee on Science and Technology and the Military-Industrial Commission (VPK) provided Directorate T and its operating arm, known as "Line X", with collection requirements. Also tasked were Soviet Military Intelligence (GRU), the Soviet Academy of Sciences, and the State Committee for External Relations. The KGB and the GRU were assigned the bulk of the collection duties, but received extensive support from the East European intelligence services. An impressive, large-scale apparatus was set up for scientific espionage; its size reflected both its importance and its necessity for the lagging Soviet economy. Detente provided access for Line X and opened new avenues for exploitation. Soviet intelligence took full advantage.

In the early 1970s the Nixon Administration had no comprehensive policy for economic relations with the USSR. The sale of strategic goods to communist countries was governed by the Coordinating Committee of NATO (COCOM), established in 1949, which administered an alliance-agreed list of products and data embargoed for sale. Nixon's policy worked within this system. The export of products exceeding the approved list was possible only through special exceptions. As part of a new set of commercial and scientific arrangements, the US and the USSR established joint technical commissions to assess prospects for trade cooperation. Priority issues included agriculture, nuclear energy, computers, and the environment. According to the assumptions of the Nixon policy:

"Over time, trade and investment may leaven the autarkic tendencies of the Soviet system, invite gradual association of the Soviet economy with the world economy, and foster a degree of interdependence that adds an element of stability to the political relationship."

Beginning in 1972, delegations of Soviet specialists came to America to visit firms and laboratories associated with their commissions. Line X, ever alert, populated these delegations with its own people. Within an agricultural delegation of 100, for example, about one-third of the delegates were known or suspected intelligence officers. On a visit to Boeing a Soviet guest applied adhesive to his shoes to obtain metal samples. In another case, ranking scientists and managers of the Soviet computer and electronics industries obtained a visa for the specific purpose of visiting the Uranus Liquid Crystal Watch Company of Mineola, Long Island. This was, to say the least, an unusual choice

since the firm was not among the Fortune Five Hundred. Three days before the delegation's arrival the Soviets conveniently requested an expansion of the itinerary to include nearly all US computer and semiconductor firms. This deliberate maneuver was executed in order that the delegation could observe (that is, collect) the latest technology. It was deliberately timed to occur in the last minute so that the Defense Department would not have time to object. Manipulation of the rules in this way was technically legal. Line X had studied American regulations, discovered the loopholes, and exploited these for Soviet advantage.

In 1973 the Soviets proposed purchasing fifty Lockheed transports to acquire the latest aircraft technology, if the manufacturing firm, then in financial difficulty, would build and equip a modern "aircraft city" in Russia. A similar proposition was put to Boeing (it besieges the imagination to ponder Brezhnev appearing from the cabin of an Aeroflot 747). Line X practiced the venerable capitalist technique of playing off competitors and from this bidding the Soviets sought to gain technical data for use at home. In 1972 the Soviets used phone intercepts of the grain dealers' network to listen to both sides of the market and purchase 25% of the US grain harvest. Not surprisingly, and certainly not accidentally, the Soviet purchase led to higher grain prices for American consumers, and unsuspecting taxpayers provided a 25-cent per bushel export subsidy. Some who were observing these events began to question the USSR's total commitment to the spirit of detente.

In late 1973 President Nixon asked his Council on International Economic Policy to determine which computer and associated production technologies might prudently be sold to communist countries. This was an important consideration since detente implied the expansion of commercial opportunities in cooperation with Eastern Europe and the USSR; a new, more liberal set of COCOM rules became necessary to fit these prospects, however illusory they may have been. Data processing was the most important technology requiring review. The Council's study dealing with computer technology was the first review of technology policy within detente. It sought to assess the economic gain for the U.S. from computer sales compared with the national security risk associated with those sales.

National Security Decision Memorandum 247 March 14,1974

Not surprisingly, the Council's study concluded that the USSR was woefully short of computers and therefore lacked the means to finance substantial computer imports. Study analysts presumed a Soviet value maximizing strategy of purchasing the most powerful computers. These same items also held the greatest risk to national security since large computers were used in the United States for nuclear weapons calculations and cryptography. The report concluded that the benefits of exporting American data processing to the USSR paled in comparison with the risks if the more powerful computers were approved for sale. The Council recommended raising the power of machines allowed for COCOM release while at the same time restricting the sale of technology. Export of the largest computers was to be prohibited. In National Security Decision Memorandum 247, March 14,1974, *U. S. Policy on the Export of Computers to Communist Countries* President Nixon approved these recommendations for the new export guidelines. As a direct consequence, the Soviets were prevented from acquiring significantly powerful Western computers, detente notwithstanding.

For the Soviets to reach parity with the United States in computer sophistication Russian engineers would now have to be responsible for their own innovation and manufacturing. Or they would have to acquire it through other means. The Soviet VPK turned to the KGB's Line X. It engaged its espionage resources to supplement what could not be developed at home. Although NSDM 247 removed the West as an open source for technology transfer, the Soviets deployed its enhanced espionage apparatus to obtain the coveted high-tech goods through the back door. Western Intelligence was unaware both of the scale of Soviet technical intelligence capabilities and of the scale of the operations that were being implemented worldwide.

In the early 1970s there were no US intelligence collection requirements for technology transfer and scientific espionage, and few if any sources reporting on this problem. However, by observing the behavior of Soviet delegations during their visits to US plants, and by keeping in mind the adroit 1972 grain purchase, a few government officials began to suspect that a master plan was in place to obtain US know-how. Direct evidence was at the time nonexistent, only anecdotal clues were available at this point.

Origins of Soviet Intelligence S&T Collection 1934 -1945

Historically Soviet intelligence had a proven track record of technology espionage and could point to the success of their brilliant Atomic Bomb acquisition program.

In fact this specific priority targeting of industrial technological information can be traced back to the period when the Americans and the Soviets established mutual diplomatic recognition on November 16,1933. In 1934 the GPU, which eventually became the KGB, instructed its officers in the United States that S&T was a high priority. The Centre instructed:

"Nowhere in the world are techniques in every industry so highly developed as in America. This makes technical intelligence in the US our main center of work."

In 1937 a Moscow cable conveyed to its American stations these instructions regarding intelligence requirements:

- "1. Aviation: high-speed planes with powerful armaments and the plane's controlling equipment;*
- 2. Navy: high-speed battleships and cruisers, armor, armaments, controls and navigation equipment, accumulators for submarines;*
- 3. Tanks: engines, armor, armament, equipment;*
- 4.telematics; equipment for seeking in the dark."*

In 1938 the NKVD formed a special unit to collect scientific-technical information and designated this unit "line XY." In fact one of their first "scientists" trained for this assignment was Semyon Semyonov, who had come to the US in 1938 to study for two years at MIT. He later returned to the US in 1942 and assumed control of the Julius Rosenberg espionage ring from Soviet illegal Jacob Golos. Semyonov continued to run the case until 1944 when he was recalled to Moscow because he was under surveillance by the FBI.

As a result of the success of Soviet industrial espionage during World War II, the USSR was able to copy the American B-29 and the Rolls-Royce jet engine (the copy powered the MIG-15). Joel Barr and Al Sarant, two former members of the Julius Rosenberg network (who had escaped to Europe and then the Soviet Union in 1947 and 1950) set up the modern Soviet microelectronics industry.

At ferreting science and technology, Soviet intelligence was professional and had the results to prove it. Certainly they were adept at copying foreign designs. In the style of Sherlock Holmes, the clues could almost speak for themselves: the USSR was behind in important technologies. The Soviets were accomplished intelligence collectors, and detente had opened a wealth of opportunities for exploitation. Those suspicious of a "Great Game" in technology espionage found that the US Government was not 221 B Baker Street. Little headway was made in convincing officials that the U.S. was facing a significant threat. The usual litany of responses to NSC pleas for help included the claims of: "No evidence" of a grand design, "not usual Soviet practice," "no requirements and no interest," "no sources."

A few alert officials were dispersed among the Executive departments. In one episode the U.S. Department of Commerce discovered a Line X effort to obtain embargoed computer technology through a dummy corporation set up for one specific transaction: U.S. officials intercepted computer shipping containers, removed the computers, and substituted sandbags in their place.

Presidential Review Memorandum 31

President Jimmy Carter was the first Chief Executive to take an interest in illicit technology transfers by the Soviets. During his administration the CIA had begun to report the diversion of computers from the West into the Soviet defense complex. Carter requested the details. He understood the strategic value of technology. The Agency produced a more complete picture of technology loss than had ever been available since the establishment of Directorate T. Moreover, President Carter ordered the first comprehensive study of technology transfer: Presidential Review Memorandum (PRM) 31. PRM 31, unfortunately, was a document that only distantly addressed the threat from clandestine collection. As such, it was largely a missed opportunity. Nevertheless, Carter was awakened by the Soviet invasion of Afghanistan. He moved swiftly to impose sanctions, canceling several computer sales, and stopping equipment destined for Soviet heavy industry.

President Ronald Reagan assumed office intent on closing and reversing what he saw as the "window of vulnerability" which favored the Soviets in strategic weapons development. He believed the Soviet economy to be faltering, inherently unworkable, and part of a system destined to collapse. His intuition led him to believe the Cold War could be won. Joining Reagan's NSC staff, were others who thought similarly and entertained the idea that economic pressure would have some effect. The NSC staff sought to fashion policies to take advantage of the USSR's low productivity, its lag in technology, oppressive defense burden, and inefficient economic structure.

Farewell & US Policy July 1981

Into the receptive climate of the Reagan administration came President Mitterrand, bearing news of Farewell, that is, Colonel Vetrov. In a private meeting associated with the July 1981 Ottawa economic summit Mitterrand told Reagan of the source and offered the intelligence to the U.S. It was passed through Vice President Bush and then to CIA. The door had opened into Directorate J.

Farewell was a 53 year-old engineer assigned to evaluate the intelligence collected by Directorate T, *an ideal position for an agent in place*. He was an agent in place for the West with access to all source intelligence. Vetrov first volunteered his services to the French in 1980 for a variety of reasons, some of these ideological. He supplied a list of Soviet organizations engaged in scientific collection and the production of summary reports from Directorate T on the goals, achievements, and unfulfilled objectives of the program. Farewell revealed the names of over 200 Line X officers stationed in ten KGB residencias in the West, along with over 100 leads to Line X recruitments.

Upon receipt of the documents (the "Farewell Dossier," as it was called by French Intelligence), the CIA and the FBI learned that since 1970 Line X had obtained thousands of sensitive documents and embargoed products. They had acquired this information in such quantity that it seemed as if the Soviet military and civil sectors were in large measure mirroring their research on that of the West. There were losses in radar, computers, machine tools, semiconductors, and even nuclear weapons. Line X had somehow obtained the most sensitive single item possible: the fusing and firing device for US nuclear weapons, which might be found vulnerable and then be subject to countermeasures. Line X had fulfilled 66% to 75% of its collection requirements. It was an impressive performance.

Overnight, technology transfer became a top US priority. The CIA set up its Technology Transfer Intelligence Center and the Pentagon created groups to conduct damage assessment and find new ways to tighten technology controls. With Farewell reporting to the US Intelligence Community, America had the Line X shopping list of the technologies it still hoped to acquire. Using the list, American intelligence sought to control at least part of Line X's collection and turn the tables on the KGB. Using the KGB's own list, the US would conduct economic warfare operations of its own.

NSC officials met with William Casey, President Reagan's Director of Central Intelligence, on a frosty afternoon in January 1982. The NSC proposed using the Farewell material to feed, or play-back, the products sought by Line X. These items would be produced by U.S. Intelligence sources in such a way that on arrival in the Soviet Union they would appear genuine but would later fail. In other words, US intelligence would match Line X

requirements, as supplied through Vetrov, with a defective or vastly inferior version of the same items. These products would not – to say the least -- meet the expectations of that vast Soviet apparatus deployed to collect them.

The plan was productive on multiple levels. Even the worst case scenario offered benefits. Suppose some nefarious double agent told KGB those devious Americans were alert to Line X and were sabotaging Soviet collection efforts? The US still could not lose, for the Soviets, being congenitally suspicious, would then question and hopefully reject everything Line X collected. If so, this would be a rarity in the world of espionage: an operation that would succeed even if compromised.

As was later reported publicly in *Aviation Week and Space Technology*, the CIA and the Defense Department, in partnership with the FBI, set up a program to execute the NSC's plan. Modified products were devised and made available to Line X collection channels. The Intelligence Community studied the Farewell material, examined export license applications and other intelligence, and contrived to introduce altered products into KGB collection. American industry assisted in the preparation of items to be "marketed" to Line X. Contrived computer chips found their way into Soviet military equipment, flawed turbines were installed on a Soviet gas pipeline, and defective plans disrupted the output of chemical plants and a tractor factory. For its part, the Pentagon introduced misleading information pertinent to stealth, space defense, and tactical aircraft.

When President Reagan was informed of the undertaking, his enthusiasm was evident. In time the American operation proved to be a model of inter-agency cooperation, with the FBI handling domestic requirements and the CIA responsible for overseas operations. The program had great success and was never detected.

The Farewell product continued to be useful in future situations. Casey dispatched the Deputy Director of Central Intelligence to Europe to coordinate a unified response with NATO governments and intelligence services to the Line X threat. These meetings led to the expulsion or compromise of about two hundred Soviet intelligence officers and their sources. With this came the collapse of Line X operations throughout Europe. Although some Military Intelligence officers avoided compromise, the core of Soviet technology collection crumbled and did not recover. Farewell dealt a mortal blow to Soviet technical collection just at the beginning of Reagan's defense buildup, his Strategic Defense Initiative, and the introduction of stealth technology into U.S. forces.

National Security Decision Directive 66 November 12, 1982

On November 12, 1982 President Ronald Reagan signed one of the most important secret documents in American history concerning the Soviet economy. This document was in the form of a National Security Decision Directive (NSDD). NSDD-66, drafted by Roger Robinson of the NSC Staff, reflected a seismic shift in the U.S. economic warfare strategy from its emphasis on sanctions to other critical tactics. Unable to secure allied cooperation over the pipeline earlier in the dispute, National Security Adviser Bill Clark had asked the NSC's international economic directorate to devise a coherent US approach to exploit Soviet economic vulnerabilities. This directive was the result.

"NSDD-66 was tantamount to a secret declaration of economic war on the Soviet Union," wrote Roger Robinson, its principal author. "It is the document that, along with the U.S. military buildup and SDI, charted the ultimate demise of the Soviet Union." Only a few pages in length, NSDD-66 made it U.S. policy to rapidly construct a "strategic trade triad" to curtail "western life-support" to Moscow.

NSDD-66 had three central components:

- It was U.S. policy to gain multilateral agreement among European allies that credits would not be extended to Moscow at better than market rates.
- The United States would not allow the Soviets access to Western high technology critical to sustaining the Soviet military or economy. The policing of COCOM would be enhanced.
- The United States would attempt to work proactively with its allies to develop alternative fuel sources so as to reduce Europe's dependence on Soviet gas. This would be part of the larger goal of preventing Europe from becoming dependent on the Soviet Union for more than 30 percent of their natural gas needs.'

Clark and Casey had not favored compromise over sanctions. They wanted to tough it out and delay the first strand of the pipeline even further. But even after the pipeline sanctions were dropped with European adoption of the "strategic trade triad" approach, Casey, Clark, and Reagan remained of the opinion that the Soviet economy could be severely damaged. And certain voices within the administration were giving officials the same message.

1 (i.e., no second 3,600-mile strand of the Siberian pipeline and no new contracts).

In late November 1982, the National Security Planning Group held a special session. One important area of discussion was the Soviet economy. Usually NSPG meetings included only the President, Vice President, Secretaries of State and Defense, and the Director of the CIA. But that day Henry Rowen was in the White House Situation Room presenting his views of Soviet economic vulnerability. Rowen methodically described the declining health of the Soviet economy.

"We have simply got to sustain our military challenge to Moscow and cut off their Western life support, because in this decade we are going to see the combined weight of that burden cause such stress on the system that it will implode," he said.

A second strategy was formulated and undertaken.

National Security Decision Directive 75 January 17, 1983

In late 1982, National Security Adviser Bill Clark directed the NSC to outline the second Reagan Administration strategy for dealing with Moscow in another secret directive for the President to sign. This proved to be no easy undertaking. Administrations since 1945 had attempted to enunciate policies with their own unique imprints. Since 1950 American foreign policy had been essentially driven by the assumptions and policies expressed in a document signed by Harry Truman and known as NSC-68.

The drafting of NSC-68 had been undertaken by Paul Nitze, who had recently replaced Georg Kennan as head of the State Department's Policy Planning Staff. The now famous document was based on a number of assumptions that were to leave a profound and indelible impression on American foreign policy.

NSC-68 described a persistent EAST-WEST struggle and a sustained Soviet military challenge. To respond to this reality, American foreign policy would be essentially reactive and defensive. It assumed, as did George Kennan in his famous article "The Sources of Soviet Conduct," that "a long-term, patient but firm and vigilant containment of Russian expansive tendencies" would eventually produce fundamental changes in the Soviet system, thus making it far less menacing to West. In the 1970s, successive administrations expanded on this stripped-down version of Kennan's Containment, adding a litany of inducements in the hopes of inviting a change in Soviet conduct. Little, however, seemed to impact the Kremlin's actions on the international stage.

Reagan and his senior advisers did not share many of the assumptions of the doctrine of Containment. Problems posed by the Soviet Union, they felt, were not to be resolved through "behavior modification" (to use the clinical term), they were inherent in the Soviet system. Instinctively, Reagan wanted to take the strategic initiative and not be forced into a reactive position. It was necessary to change the nature and scope of the superpower competition. At the time, the singular bipolar focus on a quantitative arms competition appeared to be to the Soviets' advantage. Reagan Administration officials hoped to diversify the competition to include the arenas of economics and technology. What emerged from Richard Pipes' pen was an attempt to incorporate these principles into policy. With polishing by others on the NSC Staff, the result was a farsighted document that codified the Reagan approach for dealing with the Soviet Union.

Harvard historian Richard Pipes had spent late nights in his small, nondescript office in the Old Executive Office Building writing and re-writing the pivotal document for the National Security Council. His work became the basis of NSDD-75: the first and only formal presidential directive during the Reagan administration on U.S. strategy, goals, and objectives vis-a-vis the Soviet Union.

"NSDD-75 was a clear break from the past," says Pipes.

"It was the first document which said that what mattered was not only Soviet behavior but the nature of the Soviet system. NSDD-75 said our goal was no longer to coexist with the Soviet Union but to change the Soviet system. At its root was the belief that we had it in our power to alter the Soviet system through the use of external pressure. The U.S. strategic goal became undermining the Soviet system, by exploiting its internal weaknesses. The political ligaments of the Soviet empire were seemingly weak and should be probed in the hope of 'rolling back' Soviet power around the globe. An earlier NSDD-32 had stressed U.S. interest in rolling back Soviet power in Eastern Europe, but NSDD-75 took things a step further."

The new, comprehensive document offered policy prescriptions and explicit aims for American policy on a number of fronts. "What we tried very hard to do in NSDD-75 was to have an integrated policy that incorporated actions in all areas," according to former National Security Advisor John Poindexter. "In my view that was one of the most effective things about the policy."

The document was fairly pointed and began with a statement of working principles:

- *"The United States does not accept the current Soviet sphere of influence beyond its borders, and the U.S. will seek to roll it back."*
- *"The United States will not contribute to enhancing the welfare of the Soviet economy and will do what it can to restrict any means that could serve that end (in particular the document mentioned technology, credits, and hard currency earned through energy exports)."*
- *"The United States will seek opportunities to roll back the level of Soviet influence overseas."*

This pivotal document reiterated the U.S. strategy of seeking to exploit Soviet vulnerabilities. "NSDD-75 did not say we should confront the Soviets at every point. It said we would look for vulnerabilities and try to beat them," explained Former National Security Advisor Robert McFarlane. Chief among those vulnerabilities was the Soviet economy. Echoing the Defense Department directive and National

Security Decision Directive, NSDD-66 declared that it would henceforth be the administration's policy to exacerbate the Soviet economic problems in the hopes of plunging the system into a crisis.

"The economic area we frankly felt had been ignored- certainly not used the way it could be in terms of an economic weapon to hurt the Soviets." According to Poindexter, "In the economic area there were a lot of non-believers in the Executive branch of government. I can recall senior officials taking the position that there was no way that actions taken by the United States could cause the collapse of the Soviet economy. On the face of it, that didn't ring true to me. It was much too dogmatic and unscientific. In general I think we were faithful to the NSDD. It was signed by the President for a specific purpose." That purpose was to squeeze the Soviet economy, both by reducing its income and forcing an increase in its international expenditures.

"Ronald Reagan wanted a complementary relationship between the U.S. military buildup (to redress years of neglect), futuristic defense- related technologies like SDI, and economic security policies directed at Moscow," recalled former National Security Advisor Clark. "Frankly, our intention was to divert priority Soviet resources to meeting future U.S. capabilities beyond their grasp and to persuade Moscow that they would not prevail in a toe-to- toe technological competition." In the past, technological superiority had been viewed as an advantage that could be used to counter Soviet numerical superiority on the battlefield. The Reagan Administration hoped to take things a step further. By forcing the tempo of the technology race, America's advantage could become a powerful weapon.

On January 17,1983 President Reagan approved National Security Decision Directive (NSDD) 75, *U.S. Relations with the USSR*.

In the realm of economic policy, NSDD 75 emphasized the need to control technology. Agent Farewell's reports had persuaded those individuals drafting the directive to put stress emphasis on the prevention of technology loss. President Reagan agreed.

Strategic Defense Initiative

Later in 1983 President Reagan proposed the Strategic Defense Initiative, which Gorbachev and the Soviet military took far more seriously than American commentators did. If deployed, SDI would have placed unacceptable economic and technical demands on the Soviet system. Even Reagan's famous 1983 "Evil Empire" speech had its economic effect, immediately thereafter the Soviet military requested a budget increase despite already-bloated defense expenditures.

Two events beyond presidential control coincided with the drafting of Directive 75. The Federal Reserve's restrictive monetary policy of the early 1980's led to a decline in gold and primary product prices, important sources of Soviet foreign exchange. Moreover, the discovery of Alaskan North Shore oil contributed in 1986 to the fall in petroleum prices, thereby cutting the revenues of not only OPEC but also the USSR's as well. Coincident events and deliberate government policy had the twin effects of adding to the burden on the Soviet system, and of shifting the superpower competition to the arena of advanced technology where the US held a clear advantage.

No one would care to speculate as to what would have happened without Farewell's reporting. His intelligence was certainly decisive in the outcome of the Cold War. There were, in addition, many compelling antecedents, the most significant being the Chernobyl reactor explosion of October 1986. Mikhail Gorbachev's rise to power was critical to the Soviet adoption of a new approach to politics. Of great consequence to technology was Nixon's 1974 decision to limit computer sales and technology.

Writing in 1994, Gorbachev's Science Advisor, Roald Sagdeev, explained that in computers and microelectronics--keys to modern civil and military technology--the Soviets trailed free world standards by fifteen years, and that the most striking indication of their backwardness was the absence of a domestically made supercomputer. The supercomputer was considered by the Soviets to be a "strategic attribute," the absence of which was inexcusable for a superpower. Line X did not acquire designs for such a machine, nor could Soviet computer scientists build one on their own--and NSDM 247 had halted Western technical assistance.

As for Farewell, his contribution led to the significant reduction of a crucial intelligence collection program at just the time the Soviet military needed it most. Further, it resulted in a forceful and effective NATO effort to protect its technology. Given the U.S. defense buildup, and an already floundering Soviet economy, the USSR simply could no longer compete -just as the Politburo concluded in 1987.

When historians sort out the reasons for the end of the Cold War, Farewell should receive a well-deserved footnote.

THE FARWELL ESPIONAGE STORY

Vladimir Ippolitovich Vetrov

The Man

b1928-d1983

By 1964 when Line X was established, the KGB and the Soviet Politburo were acutely aware that they were losing the Cold War to the West. Technology was the key problem. The creaking Soviet system was falling further and further behind the West in every area of science and technology, and *especially* in military technology.² The final outcome was inevitable: the Soviet Union would fall so far behind that superior Western technology would gain the upper hand and turn the Soviet Union into a paper tiger.

Given the weak Soviet economy and its even weaker military - industrial base, there was no hope the Soviets could catch up, even with the most ambitious crash program. The solution was a complete reorientation of Soviet intelligence toward the goal of stealing every piece of Western technology they could get their hands on. Line X, on the front lines of this new offensive, was tasked with recruiting a veritable army of intelligence agents: technicians, engineers, and scientists who would know what to look for and how to get it.

Line X succeeded brilliantly. In just one year, the KGB stole over 5,000 of what it euphemistically called "industrial samples" from the United States and other Western nations. Military experts were astonished at the speed by which the Soviets seemed able to obtain the most advanced technology and immediately incorporate it into their own designs. And what Line X and their GRU helpmates could not steal, they purchased outright.

In the midst of their glittering success, Vetrov began to have his own personal doubts. Although he was the son of landed gentry, he nevertheless was concerned about the average Soviet citizen. He had always hoped that technological progress would eventually better the lives of the Russian people, but as Soviet space stations circled the earth and the massive Soviet military machine grew larger and larger, he saw that the people were not sharing in the progress. The Soviet Union, obsessed with its military power, jealously poured every resource it could muster into arms.

2Soviet computer experts told the Politburo their technology was at least 30 years behind the United States, a gap widening each passing moment.

And while the mighty Soviet rockets were trundled each May Day past the Kremlin on parade, Soviet citizens were still lining up for hours to buy a stale piece of black bread.

Vetrov kept these doubts to himself, but in 1965, while in Paris supervising Line X operations in Western Europe, he began to consider the contrast between the average French citizen and his own countrymen. Even the poorest French family, he realized, lived a life that could only be imagined by his countrymen. Vetrov's doubts grew. French intelligence became aware of them through a curious encounter that was to prove monumentally fortuitous.

One day, Vetrov was involved in a serious automobile accident. He was unhurt, but the Frenchman's car he collided with almost unsalvageable. The Frenchman magnanimously offered to pay for all the damage, and arranged for repairs. He and a grateful Vetrov struck up a close friendship, and the Russian began to talk openly about his doubts.

What Vetrov did not know at the time was that the Frenchman, whom Vetrov assumed was a businessman, also happened to be an asset for France's counterintelligence agency, the DST. The DST knew that Vetrov was not merely the low-rank diplomat he claimed to be, so the question arose of how his dissatisfaction could best be exploited. DST officials decided to proceed very cautiously, for their own surveillance on Vetrov convinced them that he was a high-ranking KGB officer, probably involved in technology theft operations. Recruiting Vetrov promised to allow the DST to understand what was happening in France, and how it was taking place.

By 1970, Vetrov's tour of duty in France ended, and he was recalled to Moscow to work at KGB headquarters. His French businessman friend maintained contact, and the DST did not attempt recruit him directly. The DST was content at the time to let Vetrov know in subtle ways that he had a friend in France, available at a moment's notice to help. The DST's patience paid off in December 1980, when Vetrov wrote a carefully phrased letter to his French friend requesting an "urgent meeting", in Moscow.

At last, Vetrov had made his move. A subsequent Moscow meeting in April 1981 (the details of which are set forth below) confirmed the DST's hopes. Vetrov agreed to serve as an agent for France inside the KGB. In subsequent meetings, right under the Kremlin walls, Vetrov handed over copies of top-secret documents – all of them stamped with the warning:

" PHOTOCOPY FORBIDDEN"

These documents revealed an all source comprehensive report concerning Soviet Intelligence's technology theft operations. At that point Vetrov, a senior officer in the KGB's Department T, had an overview of the worldwide scope of the program. The value of his information transcended the interests of just French Counterintelligence and held value for every counterintelligence and intelligence service in NATO.

Concerned that the unusually long time Vetrov spent at the KGB photocopying machines might arouse suspicion, the DST equipped him with a special high-speed camera that allowed him to photograph entire file cabinets of documents.

The film cassettes that Vetrov turned over to his control officer, a DST officer serving under cover as a military attaché at the French Embassy, provided the French (and the other Western intelligence services invited to share the treasures) with a double benefit. This not only revealed what Moscow was seeking in terms of technologies, but this also revealed precisely which areas of the Soviet military were most technologically deficient. Moreover, the identities of nearly 200 KGB and GRU intelligence officers involved in technology theft operations were exposed, along with leads to more than 100 assets in the West who were aiding those operations.

Vetrov was operated in place by the French Counterintelligence Service (DST) in Moscow from April 1981 until February 1982 when he failed to show for one, and then subsequent meetings. It would be three more years until the West would finally be able to determine what happened to one of the most important agents ever handled inside KGB headquarters.

Vetrov Volunteers to the French DST

In May 1990 the former head of the DST, Marcel Chalet, publicly unveiled details of the Farewell operation when the book *Visitors Out Of Darkness* was published in France.

Chalet, aged 67, spent his entire career within the famous DST, the French counterintelligence service. He was its head from 1975 until his retirement in 1982, ending his journey with the extraordinary Farewell case. Chalet was ultimately responsible for organizing the handling of Farewell, whom Ronald Reagan dubbed "one of the greatest spy affairs of the 20th century."

According to Chalet, Vetrov chose to spy for France for two reasons. First, Vetrov had a fondness for the French, feeling both familiarity with and fondness for France's language and culture. He spoke French after having been assigned to France as a diplomat, and later to French-speaking Canada. This preference may have been linked to bourgeois Russian society's cultural affinity where having French governesses was considered good taste. In France he could count on a friend who, in what appeared to be a disinterested manner, got him out of trouble after a traffic accident in an embassy

car near Paris while somewhat tipsy. That error could have cost him his career and returned him to the USSR in disgrace. His new French friend, a commercial executive in an enterprise working with Moscow, got him out of trouble by having the car repaired as quickly as possible.

After returning to Moscow Vetrov in December 1980 posted a letter in Hungary to this friend requesting contact in Moscow. When his French friend did not react immediately, Farewell sent a second more urgent message. The first letter, written in prudent terms, was still rather ambiguous and did not call for an immediate decision. It was through this French commercial executive that Farewell sent a second message from Moscow in February 1981 along the lines of: "You must understand that, for me, this is a question of life and death."

The Operation in Moscow

In April 1981 the DST established the first meaningful contact with Farewell. He revealed his intentions straight out, did not wish to leave the USSR. Vetrov instead hoped to remain in Moscow and provide the DST with all the information to which he had access owing to his privileged position within the KGB.

Eager to convince his new Western friends, as quickly as possible, of the quality and scope of his asset possibilities, as an intelligence professional he also knew that he had to be quick in proving his sincerity. Vetrov spent several minutes explaining the meaning of his appeal, having defined his position and the framework of the fight he wanted to wage. He confirmed to his DST contact that he wanted to stay in place as long as possible in order to deal severe and long-lasting blows to the Soviet regime.

During this first meeting Farewell handed over a batch of documents. Vetrov commented, *"You'll see, what you have there is but the beginning. We can do much better. Anything you want. I have many possibilities. The only problem is to know how much time we will have and what you yourselves will be able to do to receive, digest and put to use all the things I will be able to bring you. Think already now of the questions you will want to ask me. If it depended on me alone, I could give you in the evening what you asked for in the morning."*

Vetrov and his handler saw each other three times within the span of four days. Farewell repeated his pledge to keep up the pace and to unload whole volumes from the KGB archives into the hands of the DST.

A first look at these documents quickly proved both their exceptional value and the richness of Farewell's access to the various compartments of the Soviet intelligence apparatus.

Vetrov during this time exuded happiness. For these few short moments, he considered himself a free man. It was with great reluctance that he would sometimes agree to recommendations of prudence. However, he would quickly come back to his favorite cliché: "If things were to turn bad, it would suffice to have a bottle of vodka at the right moment in order to take the step". Excessive confidence or sublime courage- we shall never know which of these descriptions is more appropriate for defining the forces that motivated his behavior during those decisive months.

Vetrov was asked how he imagined his passage to the West, but he put off the question to a later date. He wanted to remain within the Soviet system. From within, Vetrov maintained his access and his opportunities to observe documents and operations of interest to France for the defense of the free world. In fact, Farewell did not plan on leaving the Soviet Union until he had dealt as many blows as possible.

The CIA's Role in Supporting the Farewell Operation

When the DST learned that Vetrov was prepared to work for the West, the question arose as to who should handle such an agent. Some in the French government were concerned that the French foreign intelligence service, the Directorate General of External Security (DGSE), was incapable of carrying the operation through to a successful conclusion. Alternately, the DST did not have the means to completely take over a major penetration case in the very heart of Moscow.

Very early on the French asked that the Americans take on a significant part of the operation. A team of five CIA intelligence officers was sent to Europe. It set up shop at a US Army base in Frankfurt where the team produced and sent to Farewell a "real-false pen." Using this device, Vetrov, who had put himself at the service of France, made pictures of the documents he handed over to the West. The pen used special films, each of which could contain 90 exposures. The CIA in Moscow also provided casing and counter-surveillance of the places where Farewell had contacts with his French case officer. The CIA team was, in truth, the only party with the means, from a technological and a personnel standpoint, to make certain that neither Farewell nor his French contact were being followed en route to their meetings. And, although Farewell had never asked for anything, it was also the CIA that opened a Swiss bank account for him.

Farewell's Intelligence Production

According to Chalet, Farewell passed on exactly 2,997 pages of documents, mainly from the KGB and various other Soviet institutions with direct links to the KGB. Most of these documents bear a stamp indicating the maximum level of classification, "Soverchenno Sekretno," which can be translated as "Totally Secret." Many of these bear the signature of officers in charge of services at the highest levels, including the then head of the KGB, Yuri Andropov. Some of these documents were valuable as appraisals summarizing the service's long period of activity. Others outline future operations, extremely detailed research plans, the setting of objectives, and in some cases the naming of persons to be approached for obtaining information in a field also defined in advance. Some documents were provided with different dates, which allowed the West to compare the results of the work accomplished for a given year in comparison with the results of the previous year.

It was also possible to assess the development of certain research plans according to the success or failure of previous plans. There were numerous budgetary renderings of results achieved by espionage operations carried out in the West. For example, the savings which resulted due to the penetration or the acquisition (by clandestine means) of foreign technologies - often armaments - were accounted for in rubles. By the same token, these savings financed new research plans, specific to the USSR, or permitted, for military purposes, the transfer of credits assigned to civilian research (rendered irrelevant by the results of espionage).

Vetrov also provided several reports concerning the goals and results of the Soviet scientific and technical intelligence collection effort. One 128-page VPK document, detailing collection efforts in 1979, credited the intelligence collection agencies with having acquired 156 technical samples and 3,896 documents. According to the same source, Directorate T was credited with completing 557 tasks of 2,148. Eighty-seven of the samples and 346 documents were listed in research projects and in the development of new weapons systems, military materials, and in the improvement of weapons systems in current use. The document also claimed that the Soviet military aircraft industry saved about 48.6 million rubles (about \$65 million) as a result of the technology theft operation.

Two documents provided by Farewell reported on collection operations in 1980. A top-secret document dated June 19, 1981 reported that the VPK assigned 3,617 scientific and technical acquisition tasks in 1980, of which 1,085 were completed before the end of the year. These completed tasks were credited with benefiting 3,396 Soviet research and development projects. While much of the information collected by the Soviets came from unclassified Western sources, 90 percent of the intelligence considered most useful was acquired through KGB and GRU clandestine collection operations.

The KGB's summary of collection operations was apparently based on a different accounting system than that employed by the VPK. Directorate T reported that in 1980 it acquired 5,456 "samples", with 44 percent going to defense industries, 28 percent to civilian industries, and 28 percent to the KGB and other agencies.

The agents whose careers were shortened by Farewell's activities included Pierre Bourdiol, a French engineer who worked for the KGB from 1973 to 1983, and the West German Manfred Rotsch, head of the Planning Department of the Messerschmitt-Bolkow-Blohm (MBB) aircraft company. Bourdiol was able to deliver information on the Ariane rocket, while Rotsch delivered specifications of the Tornado fighter and several army missile systems.

Farewell's documents also indicated that the KGB's East European allies played a significant role in the scientific and technical espionage campaign. In 1980, approximately half the intelligence provided by Directorate T came from East European intelligence services.

The DST was able to identify, with the help of a number of documents, the sources at the disposal of the Soviets. These sources were sometimes French allies who made possible the penetration of technological research institutions. A certain number of these cases were related to France, most of them having to do with countries of the Atlantic Alliance (primarily the United States).

Farewell also provided the DST with a list of some 250 names of members of the KGB's X line entrusted with the collection of scientific and technological data throughout the world. Certain documents revealed significant details about the true activities of the KGB rezidentura in France. One of these documents, for example, contained a quick analysis of telegraphic information received by Department T during a period of some ten months in 1980. These statistics indicated the place of origin of slightly more than 1000 items of telegraphic information, more than 70 of which came out from the KGB residence in Paris.

But, above all, it was at the level of the Atlantic Alliance that the affair was to take on the most dramatic political meaning. From the very beginning the information Vetrov provided bore proof of the fragility of NATO's vital defense systems. It allowed the West to appreciate fully the intensity of Soviet intelligence service efforts directed against the entire Atlantic Alliance.

The immediate result of Farewell's intelligence output was to incite the West to strengthen its defenses, to reinforce its shield. Its character would naturally galvanize the U.S. to intensify work against Soviet espionage: to tighten the screws and to narrow cooperation between the countries of the Alliance with, among other things, a deeper respect for COCOM rules.

Farewell forced Western countries to scrutinize technology transfer policies, especially with regard to assistance provided to the Soviet Union. Farewell revealed the original text of a document signed by Andropov which substantiated the belief of the Reagan Administration that, in spite of its leaders' public declarations, the USSR was very much engaged in the 'Star Wars' program.

Vetrov Is Lost

Just as the DST was exploiting Vetrov's intelligence, the case took a rather strange turn. It was said that he was arrested in a public park accused of having committed a murder unrelated to any espionage affair. How the Soviets uncovered Vetrov's espionage was not known until 1985.

The KGB launched an investigation and discovered his secret. All this information was passed to the West thanks to Vitaly Yurchenko, the bona fide defector who sought asylum in the USA in 1985. He stayed for only three months in the United States. Yurchenko was Chief of the 5th Department of Directorate K of the First Chief Directorate responsible for the KGB's internal security. Yurchenko headed the investigation of Farewell from the very moment the latter gave himself away in a letter to his wife. When Yurchenko requested political asylum in the United States, he explained that he had been overwhelmed by Farewell's "confession." Moreover, Yurchenko explained that ever since he first became acquainted with this document, he thought about passing it to the West. He told the following story concerning the arrest and compromise of Vetrov.

Murder was not a common occurrence in Moscow in that February of 1982, so when the police arrived in the park and saw the body of a man stabbed to death and a severely wounded woman, they realized they were confronting something unusual. The case instantly became even more unusual when they identified the dead man as a senior KGB officer and the woman as a KGB secretary.

It was a case fraught with political complications. The police had barely absorbed this complexity when they were confronted with another: An hour after police arrived on the scene, then already swarming with KGB personnel, 54-year-old KGB Colonel Vladimir I. Vetrov showed up. The wounded KGB secretary pointed to him and announced that he was the man who had stabbed the dead man and tried to kill her. Police seized him, and found a bloody knife still in his pocket.

It was one of those crimes of human passion that occasionally afflicts even the KGB, and the agency worked hard to keep the case from public view. Vetrov gave a full confession, during which he admitted having an affair with the KGB secretary. On the night of the murder they had been drinking champagne in his car at the park. Suddenly, another KGB officer, who had been taking a walk in the park, knocked on the car window. He recognized his co-workers and wanted to exchange friendly

greetings-- and perhaps also get a sip of that champagne. But for some odd reason, Vetrov panicked. Assuming that the KGB man was about to arrest him, Vetrov pulled out a knife and stabbed him to death. When the KGB secretary bolted from the scene, Vetrov tracked her down and stabbed her repeatedly. Assuming she was dead, he left, but returned an hour later to make certain.

The suspicious minds of KGB counterintelligence pondered this scenario. Why had Vetrov come so unhinged at the sight of another KGB officer? The fact that the married Vetrov was conducting an affair with a KGB secretary was not exactly an unprecedented occurrence. Even if discovered by his superiors, the incident would not have resulted in severe sanctions. So what was really going on with this high-ranking KGB officer? What terrible pressure was he under?

Initially the KGB did not have an answer but resolved to keep a close watch on Vetrov. He was convicted of murder and was sentenced to prison for 12 years. A careful KGB watch on his movements and actions in prison, along with opening and reading his mail, finally produced a clue. In one letter to his wife, Vetrov hinted that the murder case had forced him to abandon "something big."

KGB counterintelligence went to work on Vetrov. It is not known if he was tortured, but the result was a confession Vetrov wrote in longhand, which he defiantly headlined, "Confessions of a Traitor." The document caused grave shock to the KGB, for Vetrov revealed that he had been a mole for French intelligence. Worse, he had compromised the KGB's greatest secret, a revelation from which it never recovered, nor did the Soviet Union.

The Final Actions by the West After Vetrov is Lost

For the KGB, this disaster would have been even more severe had Vetrov, by 1982 near the breaking point from the strain of his double life, not committed the murder in the park. Still, as soon as the French became aware that Vetrov had been arrested, they and the Western allies decided to roll up Line X intelligence officers in the West. KGB officers under diplomatic cover were expelled from France in 1983, and another 150 were expelled from other nations. The KGB hurriedly pulled another 200 out before they could be arrested or expelled. A number of assets, however, were arrested. With that, Line X operations virtually collapsed, leaving the Soviet Union at its most vulnerable just as the huge American military buildup was beginning under the Reagan administration. The USSR, forced temporarily to rely on its own resources, never did catch up; the effort wrecked the Soviet economy and was among the chief causes of the Soviet collapse several years later.

As for Vetrov, the KGB's loathing of him can only be imagined. Not since Oleg Penkovsky had a mole working for the West caused such terrible damage. Initially, the KGB had plans to put Vetrov on trial for a public airing of his "degenerate" life style (to be blamed on his exposure to the dissolute West during his Paris posting). This, the KGB assumed, would serve as a civics lesson. But no matter the severity of the threats against him, Vetrov had no intention of participating in a show trial. If the KGB wanted a trial, he made it clear he would use it as a forum to describe the failures of the Soviet leadership. He also made it clear he was prepared to indict the KGB, which he said was dominated by "alcoholism, corruption and nepotism." To underscore his determination never to play the role of penitent traitor, he insisted on adding to his confession, "My only regret is that I was not able to cause more damage to the Soviet Union and render more service to France."

Vetrov's Final Fate

The KGB decided that Vetrov was completely irredeemable. So it was that the man code-named Farewell, KGB Col. Vladimir Ippolitovich Vetrov, had his final farewell when he was taken out of his cell one morning in the spring of 1983 and shot once in the back of the head. He was 55 years old. His remains were never given to his wife.

Thus a Western penetration agent operating in place within the heart of the KGB, working in an analytical position with access to finished intelligence put his stamp on an American presidential policy. In so doing he changed the course of history and hastened the end of the cold war.