DID SOVIET SPIES INFILTRATE A CANADIAN INTERCEPTOR PROGRAM?

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WHAT HAPPENED WHEN WWII BOMBERS MADE DETOURS TO SWEDEN

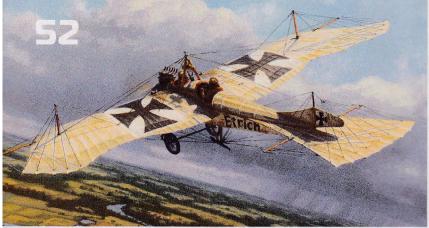


1927 AIR RACE TO HAWAII STRUCK BY TRAGEDY

AN F-117 NIGHTHAWK COMES IN FROM THE COLD

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AVIATION

HISTORY

SUMMER 2023

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ON THE COVER: In an illustration by Jack Fellows, a Swedish Reggiane Re.2000 escorts the damaged Boeing B-17 Shoo Shoo Shoo Baby to a landing in Sweden.

TIP OF THE ARROW

Not much remains of the Avro Arrow, the Canadian supersonic interceptor that was intended to counter the threat of Soviet bombers at the height of the Cold War (see the feature that starts on page 60). When Canada canceled the program in 1959, all five of the completed jets were ordered destroyed, along with engines and parts. Today the largest piece of the Arrow in existence is this nose section, which is on display at the Canada Aviation and Space Museum in Ottawa. The nose had been removed so it could be used as a pressure chamber by the Royal Canadian Air Force Institute of Aviation Medicine in Toronto; the institute donated it to the museum in 1965. The museum has a few other Arrow components, including an Iroquois engine, the Canadian-built powerplant that was intended to propel the Arrow through the sky, but never got the opportunity.

AIR QUOTE

No one can realize how substantial the air is, until he feels its supporting power beneath him. It inspires confidence at once.

-OTTO LILIENTHAL, LATE 19TH CENTURY



MISSION OF MERCY

s World War II ground to a close, the Allied-occupied German capital of Berlin became a flashpoint for the simmering rivalry between the Soviet Union and the United States. The two powers cooperated well enough at first, as American and Red Army troops, along with the British and French, withdrew to four pre-assigned city sectors agreed upon before the end of hostilities. Since Berlin was isolated 100 miles deep inside the larger Soviet zone of occupation, further negotiations afforded the U.S. the use of one rail line, one highway and three air corridors 20 miles wide to supply American troops in the city.

As the Iron Curtain began to descend, the Soviets started reneging on the right of access. By the end of June 1948, niggling Soviet restrictions turned into a full-on blockade as the Russians tried to starve the city and its two million inhabitants. The U.S., Britain and France remained determined to keep Berlin out of Soviet hands and launched an all-out aerial resupply campaign that became known as the Berlin Airlift.

The operation, run by U.S. Maj. Gen. William H. Tunner, a veteran of Hump missions to China, called into service more than 100 Douglas C-47 Skytrains, each with a three-ton cargo capacity, and two larger C-54 Skymasters, which could haul ten tons of goods each, along with several British aircraft types. Over the next 15 months, Allied aircraft delivered more than 2.3 million tons of supplies to the beleaguered city. American aircrews conducted about three-quarters of the missions—more than 189,000 flights that logged 92 million miles—and, at the Airlift's peak, a plane landed with supplies in Berlin every three minutes. Thirty American servicemen and one civilian lost their lives in 12 crashes, a remarkably low number given the wide-ranging scope of the operation.

While Gail Halvorsen, the Candy Bomber, captured popular imagination with his airborne delivery of sweets for Berlin's children, critical life-sustaining cargo like coal and potatoes was more the norm.

The Soviets agreed to lift their blockade on May 12, 1949, but the Airlift continued through September, as the Allies continued to stock the city with supplies. Western suspicion of the Soviets paved the way for the formation of NATO that same year.

The program was a huge public relations triumph for the Allies and made many Berliners forever grateful. As Wolfgang Samuel, a 13-year-old German who later immigrated to America, joined the Air Force and rose to the rank of colonel, said, "You inspired at least one German boy to want to be just like you when he grew up."

It all began 75 years ago this summer. —Larry Porges

Learn more about the Berlin Airlift at historynet.com/the-berlin-airlift

LEFT: HISTORYNET ARCHIVES; RIGHT: DESIGN PICS INC./ALAMY

COMPROMISED ARROW

DID SOVIET INFILTRATION OF CANADA'S AVRO ARROW PROGRAM MAKE AN IMPACT ON THE JET'S CANCELLATION?

BY MIKE MCALLISTER

he Tupolev airliner rolled to a stop in Moscow on August 19, 1955.

Aboard was KGB agent Evgeny Brik, back home for a vacation from his assignment in Canada. Glancing out a window, Brik saw a black limousine with curtained windows pull up and stop next to the airplane. "As he descended the steps leading from the aircraft he was astonished to see Nikolai Alekseyevich Korznikov step from the car," wrote Donald G. Mahar in Shattered Illusions: KGB Cold War Espionage in Canada. Korznikov was a senior KGB officer who was responsible for the operations of KGB illegals all over the world. "Korznikov greeted him politely and motioned for him to enter the vehicle."

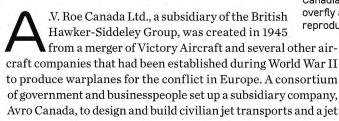
Brik fought to remain calm. He knew that the most likely fate for a spy who provided information to a western intelligence service was likely a brutal interroga-

tion followed by a bullet to the back of the head. He had reasons for concern. While living in Canada under the alias of David Soboloff, Brik had confessed to the Royal Canadian Mounted

Police (RCMP) Security Service that he had been running a Soviet spy ring inside the top-secret Avro Arrow CF-105 interceptor program. He had requested asylum in Canada.

The KGB knew all this, because RCMP officer James Douglas Morrison had tipped them off in exchange for money to pay his gambling debts.

Left: Evgeny Brik called himself David Soboloff when he spied on Canada for the Soviets. Right: One of his targets was the Avro Arrow interceptor. Here the Canadian Snowbirds overfly a full-scale reproduction.



interceptor. Avro Canada's twin-jet CF-100 Canuck—Canada's first homegrown combat aircraft—made its debut flight in January 1950, but the country's military realized it needed a better interceptor than the subsonic Canuck to counter the growing Soviet threat in the wake of the USSR's introduction of the long-range Tupolev TU-4 heavy bomber and the explosion of its own atomic bomb in 1949.

Design work began in 1953 on the airplane that would become the Avro Arrow and the Orenda PS.13 Iroquois engines that would power it, based on specifications







Canada received a warning about Soviet intentions in 1945 when cipher clerk laor Gouzenko defected and revealed the extent of the USSR's espionage activities in Canada, Gouzenko spoke to the press with his identify concealed by a hood (top) but a resourceful photographer caught him hoodless on the street in 1975.

provided by the government. "What the airstaff were asking for was the moon," chief engineer Jim Floyd told author Greig Stewart in 1988. "In short, they required a two-place, twin-engined aircraft with all-weather reliability, long range, short take-off and landing, an internal weapons compartment as large as the bomb bay of a B-29, and a supersonic maneuverability of 2G at Mach 1.5 at 50,000 feet, without any loss of speed or altitude—a requirement which has been met by few. if

any, service aircraft even to this day. In addition, it was to be guided by the most sophisticated automatic flight and fire control system ever envisaged." When the Canadian government issued its operational requirements in 1953, a Royal Canadian Air Force evaluation team concluded that no aircraft then on the drawing boards could meet the required specifications. Avro Canada rose to the challenge with the Arrow, a delta wing, Mach 2-capable interceptor with what was then an advanced flyby-wire system. The Arrow was envisioned to counter the threat of Soviet bombers armed with nuclear bombs flying over the North Pole to attack North America.

As America would be the Soviets' main target for a nuclear attack, the United States supported Avro Canada throughout the Arrow's design, testing and manufacturing stages. The assistance including providing 19 Pratt & Whitney J-75 jet engines, giving Avro Canada access to supersonic wind tunnels, lending it a Boeing B-47 Stratojet for flight testing the Iroquois as well as providing a research facility in Tennessee to test the engines. The U.S. also let Avro Canada use the missile launch facility at Wallops Island, Virginia, to test large free flight models of the airplane.

Avro rolled out the first CF-105 on October 4, 1957. As though to underscore the Cold War tensions behind the airplane, that was also the day the Soviet Union launched Sputnik 1, the first artificial satellite. The Arrow, powered by the American Pratt & Whitneys, made its first flight on March 25, 1958, with the program's chief test pilot, Janusz Żurakowski, at the controls. The first CF-105 was followed by four more, all fitted with the American engines. With test pilot Spud

Potocki flying, Arrow 25204 reached a speed of Mach 1.98 (1,320 mph) while in a 60-degree climb on November 11, 1958. Potocki pronounced himself impressed, telling the authors of the 1980 book *Avro Arrow*, "I'm not sure that the average person would realize just how really advanced the Arrow was.... The Arrow 'fly by wire' control system was easily the most advanced in the world in 1958."

Avro expected the airplane's performance would only improve once equipped with the homegrown engines. The Iroquois was intended to be in the 30,000-lb. thrust range (compared to the 26,500 lbs. delivered by the Pratt & Whitneys on afterburners) and was being designed by Orenda, the gas turbine division of Avro Canada. The first example of the MK 2 Arrows, RL-206, was intended to receive the Iroquois engines and was nearly complete on the day the program was canceled in 1959.

But by then, it appears the Arrow had already been hopelessly compromised by Soviet spies.

n 1945 Canadian intelligence had received a wake-up call about the dangers of Soviet espionage. That September, Igor Gouzenko, a 26-year-old cipher clerk at the Soviet Embassy in Ottawa, defected and turned over files that laid bare evidence of massive Soviet infiltration of western intelligence services, as well as secrets from industrial, political and research circles. As individuals identified in Gouzenko's documents were arrested and cross-examined, their testimony revealed links to other Soviet spies, who were then picked up secretly to avoid tipping off the embassy.

Gouzenko's information revealed the extent of the Soviet desire to unlock secrets of U.S. and Canadian defenses. One spy exposed by Gouzenko's information had given the Soviets samples of U-235 bomb grade fissionable material as well as many nuclear secrets. Another man the security services arrested was a member of the Canadian parliament.

The Soviets added one more spy to their Canadian roster in 1951, when Evgeny Brik arrived. He had lived in New York City as a child, but returned to the USSR during World War II with his father, a former official with the Soviet trade mission. Trained by the KGB as a deep cover agent and given the identity of David Soboloff, Brik had instructions to establish an identity in Canada in preparation for an intended move to New York City to serve as the radio and signals communication operator for established KGB illegal Rudolf Abel.





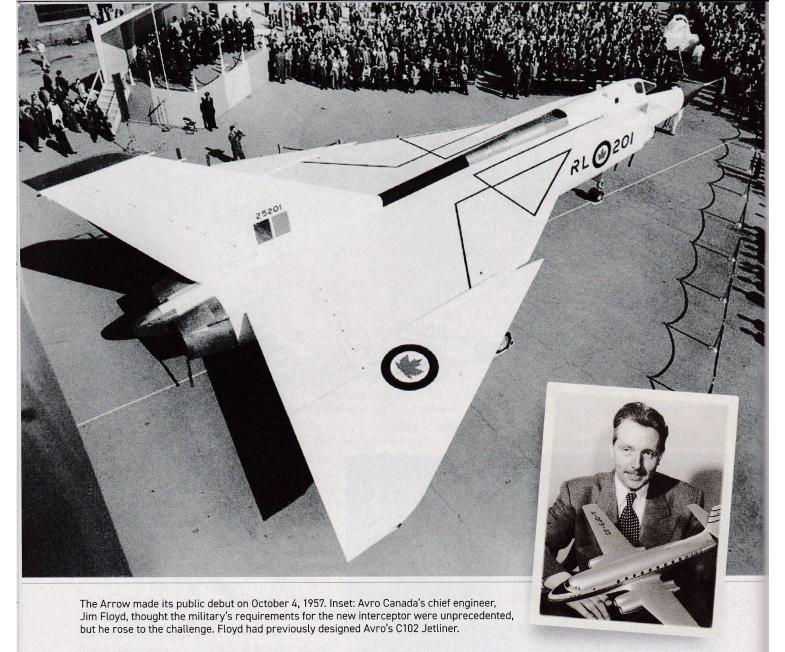
Instead, Brik fell in love with the wife of a Canadian soldier and persuaded his superiors that it would be best for him to stay in Canada. In 1953 he went to the RCMP, revealed himself as a Russian spy and requested asylum in Canada. He agreed to serve as a double agent. His handler would be Terry Guernsey, the RCMP officer in charge of counterintelligence operations.

One of the Soviet spies Brik handled had the code name "Lind"—his true identity remains unknown—who was running spy rings in Avro Canada and at the Orenda engine plant. In 1955, with Guernsey's knowledge, Brik handed his KGB handler more than five pounds of top-secret documents from Avro that he had obtained from the mysterious Lind. The haul included airframe and engine drawings for the Arrow as well as photographs and test data. Guernsey allowed the document transfer to take place because the RCMP wanted to observe the spy cell in operation before they shut it down, even if it meant compromising the Arrow. According to

Guernsey, that wouldn't matter. Someone in government had told him that the Arrow "would be obsolete in few years anyway."

If there's any doubt that the Arrow was hopelessly compromised, in October 1958, only seven months after the Arrow's first flight, Avro Canada's Jim Floyd was asked by his boss, Fred Smye, to arrange a tour for a group of Soviet aircraft engineers. Smye told Floyd to show the Soviets Avro's design and manufacturing facilities and "answer any questions they may have." At first, Floyd said, he refused, but Smye told him he would find someone else to give the briefing. Floyd asked if he should withhold performance specifications. "They already know," responded Smye. In the end, Floyd gave the tour of the Arrow facilities, keeping his information as vague as possible, and Orenda Engines' chief engineer, Charles Grinyer, gave a tour of the engine plant. It is almost certain that the order came down from Canada's Department of Defence Production. Why this was allowed to happen remains a mystery.

he announcement came only a few months later, at 11:00 a.m. on February 20, 1959, in the massive Avro Canada Plant beside what is now Toronto Pearson International Airport, and in the Orenda Engine plant across the road. All work on the Arrow and Iroquois engines was to stop. The government had canceled the program.



Two months later the five complete and flying Arrows and the 37 aircraft in various stages of assembly were ordered destroyed, along with all test data, engineering drawings and all Orenda Iroquois engines and parts. Avro couldn't survive the cancellation, which threw thousands out of work and forced a substantial talent drain to the United States and other countries. A.V. Roe Canada was out of business by 1962.

The cancellation of the Arrow remains a controversial subject in Canada. It appears that some members of the government felt the program was taking too big a bite out of the defense budget at the expense of the army and navy. Some have speculated that the United States, preferring that Canada purchase American aircraft, was behind the cancellation, but that seems unlikely based on the amount of support it had already provided. It's also possible the Soviets had other people inside the government who were working to influence the program's cancellation.

Hoping to keep his team intact, in the summer of 1959 Floyd arranged to have around 30 of his best engineers go to the United States to work on the space program. Floyd himself left Avro to work on the British-French Concorde project. Without the Arrow to replace it, the CF-100 remains to this day Canada's only mass-produced, homegrown interceptor.

After he returned to Moscow, Evgeny "David Soboloff" Brik endured 15 years in a Soviet prison, some of that time in solitary confinement, followed by several more years in a work camp. Brik did not know why he escaped execution but felt that it may have been due to the turmoil created by the death of Stalin two years before his trial. Perhaps high-ranking KGB officers did not wish to be associated with an exposed operation or felt that an execution may have focused too much attention on them. In 1991 Brik showed up at the British Embassy in Lithuania and asked if he could return to Canada. He lived in Ottawa until his death at the age of 89 in 2011.

Did the Soviets incorporate any of the knowledge they gained from the Arrow into their own designs? It's possible. For instance, they may have pirated some of the Arrow's boundary layer

A Russian Spy Calls

In the spring of 1996, an article in the *Ottawa Citizen* newspaper reported that Evgeny Brik, a.k.a. David Soboloff, had returned to Canada a few years earlier and was living a quiet life in Canada's capital. As nothing had been heard of Brik since he had returned to Moscow some 40 years earlier, the RCMP Security & Intelligence service (S&I) and Britain's MI-5, which was also aware of the case, assumed that the KGB had ordered him killed.

I had first read about Brik/Soboloff in John Sawatsky's 1982 book, For Services Rendered. The book had caused quite a stir in Ottawa by revealing the RCMP's cover-up of the treason committed by one of their officers, Corporal James Morrison, who had betrayed Brik to the KGB. In the summer of 1996 I was researching the Avro Arrow project and I stopped at the Ottawa Citizen to question publisher Russell Mills, who had been helping Soboloff. Mills offered to pass on my questions but warned me that a reply was doubtful, as the former spy didn't speak to many people.

I heard nothing for months. Then one afternoon in the fall of 1996 my phone rang. When I answered, a voice I didn't recognize asked for me by name. "You may know me as David Soboloff," he said. I took the receiver away from my ear and stared at it in disbelief.

I asked my caller why he didn't have a Russian accent and he replied that he had spent many years in New York while growing up. He wanted to know why I wanted to speak to him, and I told him I was interested in Soviet spy operations inside the Avro Arrow project. He confirmed that he had smuggled out five pounds of airframe and engine drawings, test data, photographs and other documents before he was betrayed, and that soon after, he had heard that 11 engineers who were working on the project had left Canada.

Trying to confirm my caller's identify, I asked him about his Canadian handler, Corporal Charlie Sweeny. He told me that Sweeny had once brought a gun to his basement apartment to give him. Soboloff had told him he didn't need a gun and Sweeny responded by firing the weapon into a phone book, perhaps as some kind of demonstration. He also told me that Sweeny liked his whiskey, specifically Grand Macnish.

Soboloff then asked me why I was interested in events that had happened so long ago. "Why am I interested?" I replied. "You were a Russian spy in a top secret defense project in the middle of the Cold War." He said it was not a big deal and that his phone card was about to run out. "Please call me collect anytime, I'll pay for it," I said, and then the line went dead.

As soon as I got off the phone, I called my father, who had worked in the same branch of counterintelligence as Sweeny. "Dad, you knew Charlie Sweeny, right?" I asked.

"Yes, I did," he replied.

"Did he like whiskey?"

"Yeah, why?"

"What kind?"

"Grand Macnish."

"In that case, "I said, "I think I've just spoken to David Soboloff." I never heard from Soboloff again. —M.M.



Canadians took great pride in their state-of-the-art interceptor, and the Arrow's cancellation remains a bone of contention to this day.

research and used it to design air intakes for their own aircraft, but the answer to that question—like the identity of the mysterious Lind remains undetermined.

Little remains of the Avro Arrow today. Much that escaped destruction survived because Avro Canada employees removed parts from the company without authorization. Today, the Canada Aviation and Space Museum in Ottawa has an Arrow nose section, along with other bits and pieces and an Iroquois engine (see "Artifact," page 9). Those artifacts, along with a Pratt & Whitney J-75 and a damaged Iroquois engine at the Canadian Warplane Heritage Museum in Hamilton, Ontario, are almost all that remains of an aircraft that by many accounts would have put Canada in the forefront of military aviation—and as a result became the target of Soviet espionage. ±

Mike McAllister is a retired millwright and a certified rescue diver with an interest in history. He has written for the Discovery Channel, Eye Spy, Diver magazine and other publications. He was a member of the Toronto Aerospace Museum for 10 years and belongs to the Canadian Harvard Aircraft Association Dive Recovery Team. For further reading he recommends Shutting Down the National Dream: A.V. Roe and the Tragedy of the Avro Arrow by Greig Stewart.