

Janusz Zurakowski was born in Ryzawka, Poland in 1914 and joined the Polish Air Force as a cadet, at the officer's school, Deblin, in 1934. After 3 years training he was commissioned and posted to No. 161 Fighter Squadron at Lvov. In March 1939 he was posted as an instructor to the Fighter Training School at Deblin. In September, during the invasion of Poland, he was flying the obsolete P-7 aircraft but damaged a Dornier Do17. With his country's forces defeated, in 1940 he escaped to England via Romania, Syria and France. Enlisting in the Royal Air Force Volunteer Reserve he was posted to No. 234 Squadron at St Eval. The squadron moved to Middle Wallop in August, and on the 24th he was in combat with Luftwaffe Experten Oberleutnant Hans-Karl Mayer of 1 Staffel JagdGeschwader 53. After landing, Jan's Spitfire, N3279, was found to be damaged beyond repair. Revenge was to come on 15th August ? when he shared in the destruction of a Messerschmitt Bf110 flown by Feldwebel J Birndorfer of 6 Staffel Zerstorergeschwader 76. The pilot was thought by some to have baled out, but Jan states that he was chasing the aircraft at treetop height and no pilot would have even considered baling out at that altitude. The Bf110 lost power from both damaged engines and crash-landed on the Isle of Wight. It did not catch fire, and many allied soldiers were seen gathering around the wreckage.

On 6th October 1940, Jan joined 609 (West Riding) Squadron at Middle Wallop, under the command of Squadron Leader Michael Robinson. His Battle of Britain claims were for three enemy aircraft destroyed.

In March 1941, Jan was posted to No. 57 Operational Training Unit at Hawarden as an instructor. This was followed by postings to No. 61 and No. 58 OTU's, before returning to an operational unit on 8th December 1941, when he joined No. 315 (Polish) Squadron at RAF Northolt.

On 11th April 1942, Jan was posted as a Flight Commander to No. 306 (Polish) Squadron at RAF Church Fenton, taking command of the squadron on 6th June at Heston with the rank of Squadron Leader.

His next posting was in 1943 to Northolt as Sector Gunnery Instructor. Later, as deputy Wing Leader, he led the Polish Wing on 46 Operational sorties.

In March 1944, Jan was selected for Course No. 2 at the Empire Test Pilots School, and in 1945 he was posted to Boscombe Down for test pilot duties with the Fleet Air Arm Squadron, where he tested over 30 types of aircraft - including, amongst others, the Tempest, Typhoon, Vampire, Meteor, and Sabre whilst with 'A' Squadron.

Post-war Jan joined the Gloster Aircraft Company in June 1947 as Experimental and Development Test Pilot. On 21st December 1948 he undertook the maiden flight of the Meteor Mk F8. This was followed on March 23rd 1950 with the maiden flights of Meteor Mk FR9, and the next day Meteor Mk PR-10. On 4th April 1950 he set a speed record for the London to Copenhagen return flight. Between 1947 and 1952 he logged over 1000 flights in Meteors, 50 in the E1 / 44 and 14 in the Javelin.

Jan's display flying at the Farnborough airshows was now becoming the talk of the aviation world. He had demonstrated the Martin Baker MB5 fighter back in 1946, the Meteor 4 in 1948, the Meteor TV11 in 1949, the Sapphire Meteor in 1950, and capped it all in 1951 when he flew the ground attack version of the Meteor with a demonstration of a new manoeuvre that he had developed and dubbed the 'Zurabatic Cartwheel'.

Leaving Gloster's at the end of April 1952, he joined Avro Canada at Malton, Ontario, as Chief Experimental Test Pilot, and on 11th October made the first flight in the CF100 Mk4 - which he demonstrated at Farnborough in 1955. On 18th December 1952, he took it through the sound barrier. In 1954, Jan had to eject from an uncontrollable Mk4 and broke a leg in doing so. On 12th October 1955 he made the

first flight in the Mk 5. In 1957 Jan tested the Convair F102A and a TF102A. On 25th March 1958 he made the first flight in the CF-105 (25201) and on 1st August he flew the second prototype of the Arrow and reached a speed of Mach 1.89 in the third prototype on 22nd September.

On 18th February 1959 the Canadian aircraft industry suffered an identical catastrophe to that which was to devastate the British one a few years later with the TSR-2 - under intense pressure from the Americans, the Arrow was scrapped by the Canadian Government with the loss of 14000 jobs. Jan retired immediately and moved to Barry's Bay, where he built a 'tourist lodge' in beautiful surroundings and was surrounded by his extended family.

In 2000 Janusz was inducted into the Society of Experimental Test Pilots, as an Honorary Member. This American based Society restricts membership to test pilots worldwide who are adjudged to have served the aerospace industry by their outstanding handling, and reporting, of newly designed and built aircraft. Sadly Janusz was unable to attend in person but sent his acceptance speech on video, to the Los Angeles ceremony and was represented by Shawn Coyle the President of the Canadian Test pilots Association. Later Shawn delivered the Certificate of Honorary Membership to Jan, flying in by helicopter.

Extract from Canadian National Defence News Release dated 15.03.2000.

THE AEROSPACE ENGINEERING TEST ESTABLISHMENT DEDICATES BUILDING IN HONOUR OF A VIATION PIONEER

COLD LAKE. On March 20, 2000 the Director General Aerospace Equipment Program Management, Mr. Ken Ready, will officiate at a ceremony to dedicate the new home of the Aerospace Engineering Test Establishment after Mr. Janusz Zurakowski.

After a resume of Jan's war service the extract continues: In 1952 Mr. Zurakowski came to Canada and joined Avro Canada in Malton Ontario, as Chief Experimental Test Pilot, responsible for the development of the CF105 Interceptor Fighter. On March 25 he piloted the Avro Arrow on its maiden flight.

For his outstanding contribution to Canada's aeronautical achievements, Mr. Zurakowski was awarded the McKee Trophy, in 1958, Canada's highest award in aviation and was inducted into Canadian Aviation Hall of Fame in 1973. In 1997 he was named the "Pioneer of Canadian Aviation" by the Western Canada Museum.

Aerospace Engineering Test Establishment (AETE) conducted an extensive search, of Canadian Aviation Pioneers to find the right person to honour. Janusz Zurakowski was the perfect 'fit' but AETE's choice did not meet the criteria which controlled the naming of buildings within the National Defence Dept. The order states that the use of personal names is restricted to;

- a. Living or deceased members of the Royal Family
- b. Living or deceased former Governor-Generals of Canada and
- c. Deceased distinguished persons.

The Canadian National Defence Headquarters waived the stipulation that, "that only deceased persons may be so honoured — given the truly exceptional nature of Squadron Leader Zurakowski's historic contribution to Canada."

In a letter to Jim Earnshaw Jan wrote that as he is 86 they could have waited a while and avoided the admin problems as to who was eligible.!

He spent three days at Cold Lake and enjoyed some low flying, albeit in Helicopters.

He got his start in the business of aviation learning to fly gliders and in 1934 he joined the Polish air force. He was educated at the Polish air force officer's school and learned to fly powered in 1935 subsequently serving as a fighter pilot and flying instructor. In 1939 Mr Zurakowski had his combat debut in an outmoded PZL P7 against a flight of German Dornier 17s over Deblin. Following the defeat of Poland on September 17 1939, and apparently not having had enough of long odds, he made his way to England to fly in the Battle of Britain. He was posted as a Pilot Officer to No 234 Squadron stationed at St Eval, Cornwall a town named after the patron saint of flight testing. He flew the Spitfire Mk 1 against the Luftwaffe shooting down a ME 110 over the Isle of Wight in August 1940. The Germans responded by shooting him down nine days later whereupon he returned the favour shooting down two ME 109Es on the 12th and 13th day after that. Near the conclusion of the Battle of Britain, he scored a 'probable' over a ME 110. For his flying achievements he was awarded the Cross of Valour with bar in February 1941. In 1942 he flew again with his countrymen on Spitfire IIs in No 315 squadron rising to the post of Squadron leader of No 316 squadron and Deputy Wing leader of Polish No 1 Fighter wing stationed at Northolt often escorting USAAF bombers on daylight bombing raids. He was awarded the Virtuti Militari, the Polish equivalent of the Victoria Cross.

In 1944 he was posted to the Empire Test Pilot's School and graduated from fixed wing serial number 2. Embarking upon his career in flight test with "C" squadron of the Aircraft and Armament Experimental Establishment upon graduation, he began testing naval aircraft for the Air Ministry. Never having landed an aircraft on a carrier before, he practiced landing on a deck painted on a runway. Following a brief secretarial SRB he proceeded to land the Seafire, a navalised Spitfire, on the deck of HMS Ravager without incident. While still at Boscombe Down he also flew, among other types, the Vampire, the deHavilland Hornet and the Gloster Meteor never letting pass "an opportunity to give the staff a display that included single engine aerobatics". In 1947 he joined the Gloster Aircraft Company and along the way set a speed record London to Copenhagen return. In the Meteor he developed the Zurabatic cartwheel and displayed this spectacular manoeuvre to the assembled crowds at Farnborough, England where over the years he has demonstrated six aircraft types.

In 1952 he joined the AV Roe Canada Company in Malton Ontario as chief development test pilot and in December of that year broke the speed of sound in a CF-100 Mk 4, an aircraft that certainly does not appear to have any business going that fast. In 1953 he became the chief test pilot on the Arrow program and flew the first flight in RL 25201 on March 25 1958. Later he was to fly arrows 202 and 203 as well logging a total of almost 24 hours flight time on the prototypes. He retired before the cancellation of the Arrow program and built himself a small tourist lodge near Barry's Bay, Ontario which he and his family have operated for 40 years.

ZURAKOWSKI, Janusz, joined the Polish Air Force in 1935. In 1939 after the Polish Campaign, he escaped from his country and later arrived in the United Kingdom. He was posted to 234 Squadron, and on 14th August 1940 shot down a Bf110. He destroyed a Bf109 on 5th September and another next day, and on the 29th shared in

probably destroying a Bf110. In October he was posted to 609 Squadron. He later served in 306 Squadron, and commanded 316 Squadron during 1944, flying Mustangs. His score by this time was 6. He then attended the Empire Test Pilot's School, and after the war joined Gloster Aircraft as a Test pilot, becoming famous for his fantastic aerobatics. He went to Canada in 1952 to join Avro (Canada) Aircraft, and became Chief Test Pilot, testing the CF TOO Canuck and the CF 105 Arrow.

Zura was QFI in Poland Spring 1939. P/O Janusz Zurakowski 05.08.40 at 152 Sqd, 12.08.40 in 234 Sqd, 06.10.40 to 609 Sqd, 21.03.41- 57 OTU (instructor), 15.04.41- 55 OTU (instructor), 16.04.41- 56 OTU (instructor), 22.04.41- 55 OTU (instructor), 08.12.41- 315 Sqd, F/) promotion and posting 11.04.42 306 Sqd, promoted to S/L 06.07.42 at 316 Sqd, Sector Gunnery Instructor 01.01.43 RAF Northolt, 01.08.43 Deputy Wing Leader No. 1 Fighter Wing, Northolt, 30.10.43 Fighter HQ, Stanmore, 15.03.44- Empire Test Pilots School.

Jan	Zurakowski,	Avro	Arrow	pilot
Canadian	aviation	pioneer	dead	at 89
War hero helped usher in jet age				
BILL				TAYLOR
FEATURE				WRITER

Jan Zurakowski was Canada's Chuck Yeager, a test pilot known as "the best of the best." But the man who was the first to fly faster than sound in a Canadian-designed aircraft, the first to fly the Avro Arrow and the first to take that fabled jet interceptor through the sound barrier, tended to downplay his achievements.

Asked in 1994 what it was like to achieve such breathtaking and potentially deadly speeds, he told the Star: "It feels just like flying slowly, only faster."

Janusz Zurakowski died Monday at home with his family in Barry's Bay, Ont. He was 89.

Mr. Zurakowski was born of Polish parents in Ryzawka, Russia, Sept. 12, 1914. The family moved to Poland in 1921 after the Bolshevik revolution. Mr. Zurakowski joined the Polish Air Force in 1934 and learned to fly the following year. When Germany invaded Poland at the start of World War II, he fled the country and reached England in January, 1940.

He became a Spitfire pilot in the Royal Air Force and shot down three German planes during the Battle of Britain. He was shot down in flames once himself but parachuted to safety. In 1942, he was given command of a Polish fighter squadron and led dozens of combat missions. He was mentioned twice in dispatches for his bravery and awarded the Polish *Virtuti Militari* and Cross of Valour.

After the war, Mr. Zurakowski was reunited with his childhood sweetheart Anna. They married in Paris in 1948.

His career as a test pilot began on the Gloster Meteor, Britain's first operational jet fighter. It was on the twin-engined Meteor in 1951 that he perfected the "Zurabatic Cartwheel," an aerobatic manoeuvre that is still a crowd pleaser at air shows. At the time, though, it had a practical application. Mr. Zurakowski had been asked to demonstrate what would happen if an engine failed with the plane in a steep climb under full power.

The year before he had set an air-speed record flying round-trip between London and Copenhagen.

Mr. Zurakowski immigrated to Canada in 1952 and became Avro Aircraft's chief development pilot at Malton. Within months, he had power-dived a CF-100 fighter jet through the sound barrier — an achievement the plane's engineers had not thought possible. This was commemorated by the Canadian Mint in 1996 on a silver \$20 coin with a cameo of Mr. Zurakowski.

He also came up with another aerobatic manoeuvre, the "falling leaf," putting the plane through a series of graceful sideslips. Again, this had not been thought possible with a jet.

On March 25, 1958, Mr. Zurakowski piloted the prototype Avro Arrow on its maiden flight. On its seventh flight, he took the Arrow to 1,600 km/h.

In 1958, he was awarded the McKee Trophy for his achievements in aviation. The Arrow project was axed the following February and shortly afterward Mr. Zurakowski retired. During a test flight over the

Madawaska Valley southeast of Algonquin Park, he'd noticed shoreline property near Barry's Bay that he thought would be a good place to live. The area has many people of Polish descent, and he and his wife opened Kartuzy Lodge for tourists. Mr. Zurakowski was inducted into Canada's Aviation Hall of Fame in 1973 and in 1997 was named a "Pioneer of Canadian Aviation" by the Western Canada Aviation Museum in Winnipeg. In 2000, the Canadian Flight Test Centre building in Cold Lake, Alta., was renamed in his honour.

Last summer, Zurakowski Park was opened in Barry's Bay. Mr. Zurakowski is survived by his wife Anna, and sons George and Mark. A funeral service will be held at 11 a.m. tomorrow at St. Hedwig's Roman Catholic Church in Barry's Bay.

Canada East 11th February 2004-02-12

Jan Zurakowski, first test pilot of Avro Arrow aircraft, dies at age 89
BARRY'S BAY, Ont. (CP) - Janusz Zurakowski, the first test pilot of the revolutionary Avro Arrow aircraft, has died at age 89 more than four decades after the legendary plane's inaugural flight and its controversial cancellation soon after.

Zurakowski died Monday evening in this eastern Ontario town in Renfrew County's Madawaska Valley after a two-year battle with leukemia, his family said Tuesday.

George Zurakowski, the eldest of the late pilot's two sons, said his father served as an inspiration to budding flyers.

"I think he served as an inspiration and continues to serve as an inspiration to young people, especially (those) who looked up to him and who are thinking perhaps of becoming pilots themselves and read about some of his exploits," said Zurakowski, 54, from the small tourist lodge built by the family 43 years ago.

A decorated Polish-born ace aviator, Zurakowski fought for Poland in the Second World War, and like many other Polish airmen escaped to continue the fight from England before he put down roots in Canada.

In 1952, Zurakowski - already a legend and hero in Poland for having damaged a Dornier 17 over Poland after the Nazis attacked on Sept. 1, 1939 - was recruited by Avro Aircraft company as a test pilot for the Arrow, Canada's first supersonic jet. He eventually moved his family to the region of Kaszuby in northern Ontario.

The Arrow was conceived to protect Canada during the height of the Cold War in the 1950s, when the Soviets had introduced new long-range bombers capable of flying over the North Pole to attack North America. It was intended to replace the Avro Canada CF-100 Canuck as a supersonic all-weather receptor.

A short and unassuming man, Zurakowski climbed aboard the Avro Arrow RL-201 for its first flight at 9:51 p.m. on March 25, 1958, at Toronto Malton Airport under hazy sunshine.

Zurakowski pushed the jet to 1,600 kilometres an hour on its seventh flight and tests indicated the Arrow, with its twin Iroquois engines, could become the world's most advanced interceptor.

But soaring costs and the development of competing missile technology prompted Conservative Prime Minister John Diefenbaker to cancel the 10-year-old project in 1959, leading the aircraft company A.V. Roe to lay off 14,000 employees while the government ordered all plans and prototypes destroyed.

Zurakowski's widow, Anna, said Tuesday that calls were pouring in to the family home from across Canada, notably from members of the Canadian aviation industry and military.

In an interview with the Belleville Intelligencer, she said her husband held a special place in aviation history, from his start flying gliders in the mid-1930s with the Polish flying academy and into the Second World War when he was shot down during the Battle of Britain.

After several confirmed kills against the German Luftwaffe, Zurakowski was honoured with the Cross of Valour. Following the war, the celebrated fly-boy was posted to Britain's top test-pilot school and he embarked on a career of testing planes for some of the world's biggest manufacturers.

"Jan tested over 100 planes," said Anna Zurakowski, 82. "The Arrow was the last one he tested."

Zurakowski retired before the Arrow project was cancelled by the government, she said, adding that her husband remained bitter about the cancellation for numerous years.

"Any time he was reminded about these things, he became angry, yes," she said. "When someone talked to him about the Arrow, he became frustrated because it wasn't just about the plane."

"This was a very big asset for Canada. He was sad the day the program was stopped. Canada was trying to lead the aircraft industry. He believed Canada could do it, that it wasn't some dream."

In July 2003, Barry's Bay honoured Zurakowski by dedicating a park - featuring a small-scale prototype of the Avro Arrow - to their longtime resident. Zurakowski is also survived by son Mark, 52, and five grandchildren.

Funeral services for Zurakowski are planned for Thursday at Hedwig Church in Barry's Bay.

During 1940 I was in England with Keith Ogilvie, or "Ogi" as we called him, in 609 Fighter Squadron. Earlier, I was with Stew Young in 234 Squadron.

At that time, I was a pilot officer, and so I flew any aircraft that was available. According to my logbook, I carried out eight sorties on Spitfire Mark I No. 4182 and 13 sorties on No. 3191.

From August 14, 1940, to September 11, when 234 Squadron operated from Middle Wallop near Salisbury, we suffered such heavy losses that what remained of the squadron was moved back to St. Evel (Cornwall), and only one section was fully operational. In October I was posted back to the Middle Wallop RAP station and joined 609 Squadron, where Ogi was my section leader.

My first Spitfire flight was at No. 5 Operational Training Unit at Aston Down, on July 24, 3 1940. On the second flight, I was instructed and authorized to do "acrobatic." Ten days later, I was posted to an operational squadron. After my first flight there, with a bit of aerobatics over our airfield, I was called to the station commander, who furiously explained to me that to do aerobatics on a Spitfire, one needed 50 hours' experience on the type, plus written permission from the station commander.

My poor English (Polish was my first language) and the evidence in my logbook that I was cleared for aerobatics saved my skin.

One problem with aerobatics on the Spitfire was in spinning. The proper technique for spin recovery was described in the Pilot's Notes, though spinning was not recommended. I determined that it was not possible to stop a spin in exactly the required direction. Training did not improve the situation.

I was disappointed because on the old Polish PZL XI fighter I could stop, after any number of spin turns, in the exact desired direction. I later discovered that probably the only time a pilot could be faster than a flying Spitfire was in bailing out of the aircraft in a spin.

I discovered this during a sortie on August 24, 1940. I was attacking a formation of 10 Bf 109 bombers that were on a bombing run of Southampton harbour. After my attack, I made the error of climbing to join the squadron. Some of the escorting Me 109s managed to put a few cannon shells into my Spitfire. I lost control of elevator and rudder. My Spitfire then went slowly into a turn, stalled, and ended up in a flat spin.

Having no controls, I had to bail out. At about 18,000 feet I slid open the canopy, climbed out of the cabin, and jumped. I soon found I was descending faster than the Spitfire, which was spinning above my head. I was afraid to pull the rip cord to open the chute because that would have slowed me down, risking a collision with my spinning Spitfire.

The ground was approaching fast, and when I could distinguish a man standing in a field with a gun, I decided to pull the rip cord. It was now or never! My parachute opened immediately. My Spitfire just missed me and hit the ground with a bang. A few seconds later, I landed the field, next to the old man (from the Home Guard) who was armed with a double-barrel shotgun. He was badly shaken by the crash.

Suspecting that I might be a German, he asked me if I spoke English. Since my English was poor, I decided to remain quiet. I tried to show him my RAF identity card, but his hands were shaking so violently that he could not take it. I decided to start packing my chute, and a British army officer arrived and cleared the situation.

A Spitfire's vertical speed in a flat spin is fairly low, so the damage to my Spitfire on impact with the ground was not severe. The main engine mounting failed and there was evidence of two gunshots (probably 20 mm calibre) in the rear fuselage tail junction and one in the port wing.

I learned later on that day, seven RAF and seven German aircraft crashed on the Isle of Wight. The spot where I landed was not too far away from the spot where, on August 15, an ME110 was badly damaged by my attacks and crash-landed. The pilot was killed, and the uninjured gunner was later a prisoner of war in a camp in Canada. Next morning I returned to my squadron. I was flying again, but learned from my friends in London that I had been officially killed. I had to send a report to the effect that I was very sorry, but that since the date of the crash, I had carried out six operational sorties in August, so I was obviously alive. Shortly afterward, I received two letters addressed to me, marked "Killed in Action" on the envelope. I kept those letters as souvenirs.

During the Battle of Britain, I often used spins to save my life. I can think of at least four times when this simple but dramatic manoeuvre of pretending to be shot down came in handy. I used it when I was attacked by German fighters and had no chance to fight successfully. I usually started with a snap roll, which culminated in a vertical stabilized spin. I would quickly close and open the throttle, producing black smoke from the engine exhaust.

To German pilots, a spin was an indication that the Spitfire was out of control. Black smoke confirmed that the aircraft had been shot down. Why follow and confirm the crash if it meant losing height over enemy territory? Better to claim one Spitfire shot down!

Evidence after the war indicates that German fighters claimed the destruction of three times more RAF aircraft than actual RAF losses in combat. So I was spinning happily, recovering at 5,000 feet or so, and if there was enough gas and ammunition, I would climb again in search of better fighting opportunities.

One might wonder why anyone would use this manoeuvre. There were situations, especially in the Battle of Britain, where we were so outnumbered that the Spitfire had no chance. The manoeuvrability of the Spitfire was so superior to the Me 109 that in a dogfight I considered two or even three Me 109s equal opponents.

A section of four Me 109s normally had a smart leader and would generally decline a dogfight. Instead, they would spread widely in all directions, and I would immediately be in good position to open fire on any enemy. However, another Me 109 would also be in a good position to open fire on me, and then I would have to break the engagement.

Above 5,000 feet I could not outdive or out-climb the Me 109, so if my Spitfire's superior manoeuvrability could not be used, pretending to be shot down was a good strategy, saving both the Spitfire and me for the next fight. At low altitudes, with emergency engine boost, the Spitfire allowed for three minutes of extra power; and was definitely better all-round in performance than the Me 109.

I gained a lot of experience on Spitfires. I made over 1,000 flights in 15 different marks, from the Mark I to the Mark 24, while I was in the RAF and the Polish Air Force in England. In 1940, RAF fighters saved Britain from Hitler's invasion. Without air superiority, the Germans could not succeed, even with the colossal strength of their armies.

Editors note: Mr. Zurakowski, despite being hired as the chief test pilot on the Arrow, in fact never did have a pilot's license, let alone experimental Jet test endorsement.

From 'Spitfire The Canadians', Robert Bracken, Boston Mills Press.