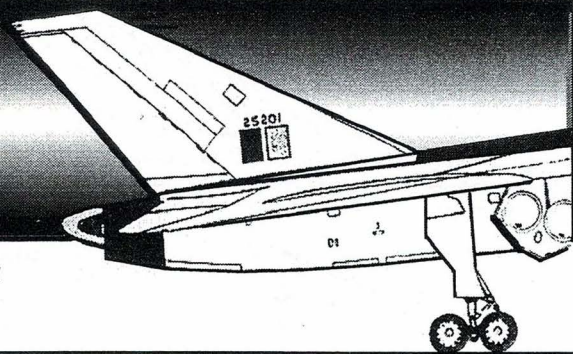


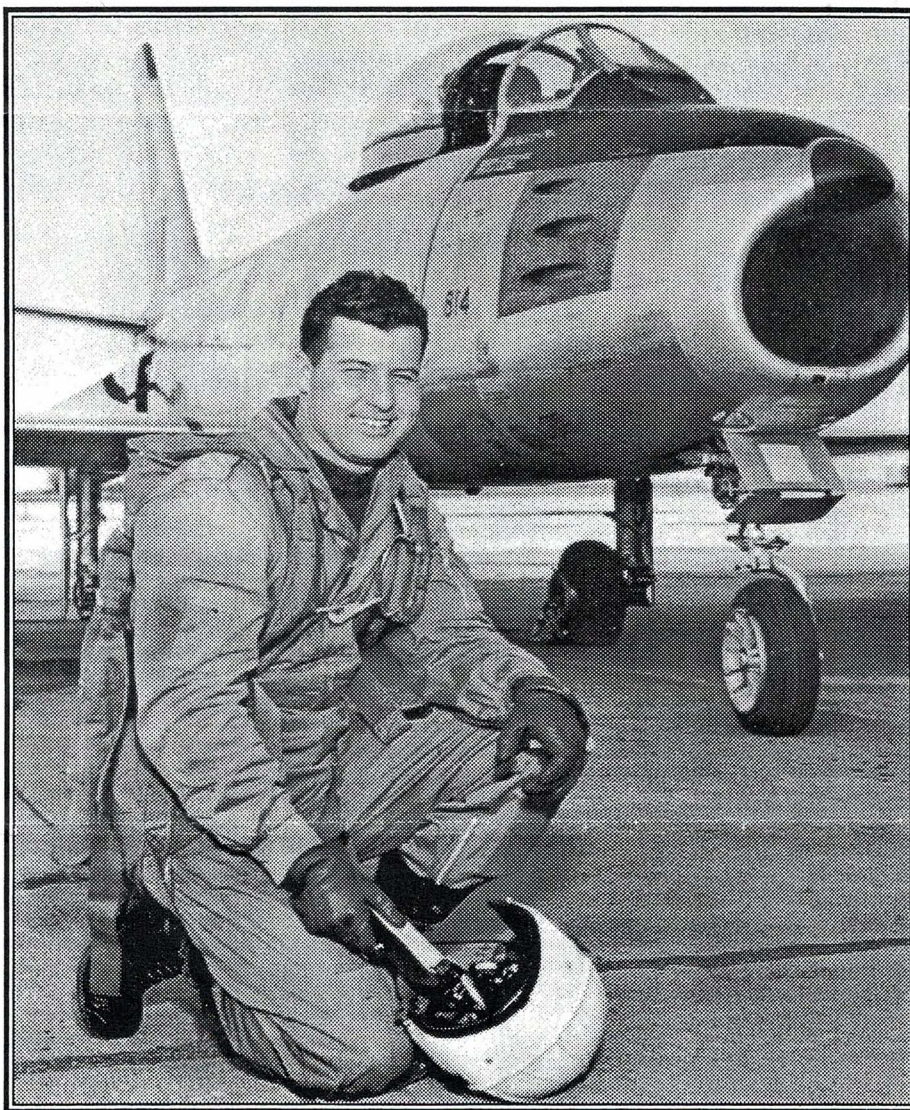
Pre-Flight

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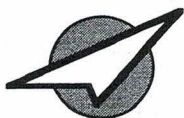
Jack Fraser Woodman

1925 – 1987

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From the President

The Smithsonian Institute in Washington, D.C., in its popular magazine *Air and Space Smithsonian*, featured an article in its November 2004 issue about our underwater search for the Avro Arrow models. As usual, the article, along with the rest of the magazine, is excellent, both from the perspective of presentation and content. Check with your local library; it may have this recent issue.

I hope you enjoy the Jack Woodman story. Jack was a great test pilot, a true professional who took his work very seriously. His participation in the testing of the Arrow was first class.

As this is the last issue of *Pre-Flight* for 2004, I take this opportunity to wish everyone a happy and safe holiday season.

Frank

Jack Woodman: From the Ground Up

Four names are intimately connected to the CF 105 Arrow: Peter Cope, Spud Potocki, Jack Woodman and Janusz Zurkowski. When the government of Canada cancelled the Arrow in favour of the Bomarc missile system, they left and took with them their skills and dedication to other fields of aerospace endeavour. Peter Cope continued working in the aerospace sector. Spud Potocki, like hundreds of former Avro employees, went south to continue the line of work that was his forte. Janusz Zurkowski left Avro and never again flew as a test pilot. Much has been written about his person, his life and the how he dealt with the aftermath of the calamitous sequelae of February 19, 1959. Here is a precis of the last of the four who flew the Arrow, Jack Woodman.

JACK FRASER WOODMAN was a Westerner, born in Saskatoon, Saskatchewan on May 14, 1925. The place of his birth was a small urban city, smack in the center of the province. The North Saskatchewan River leisurely flowed through it then as it does today. The streets were wide and on Sunday you could shoot a cannonball down any main thoroughfare. It wouldn't hit a thing; eventually would run out of energy and roll to a stop. "Mind you," people would say, "it's not a hurried town". But things noticeably changed with the start of hostilities in 1939. In no time at all, thanks to the superb work of the Corps of Engineers, Canada became the airport of the Allies, the flying school of the Western World. By 1940, young men no longer were quietly sent to the USA to train as pilots. Airports sprung up anywhere there was sufficient flat ground. Flying was always a unique and glamorous calling in Canada. So when Jack graduated from high school in 1943, he joined the RCAF and was selected to train as an air gunner. Eventually, he ended up in England on June 1, 1944 and was promptly assigned to Bomber Command. By the end of hostilities, he had completed 23 operational missions in Halifaxes and Lancasters.



Woodman, cont'd

When WW II was over, Jack volunteered for the Eastern theatre, but that ended soon. Jack was discharged as a Flight Sergeant and returned to Saskatchewan. He was 20 years old and did what thousands of veterans did, he went back to the books. He enrolled in Engineering at the University of Saskatchewan. But three years later, he was back in the RCAF and taking flying lessons at Centralia, Ontario. He earned his wings a year later, and was proud when they were pinned on the tunic of his uniform. He was 24 years old. Assigned to the base in Winnipeg, he did a lot of flying in Dakotas, Expeditors, and Norsemen. He was attached to 111 Communication and Rescue squadron, so he was kept busy with a variety of flying duties, many of them in various degree exciting and dangerous. One of these was a mercy flight of 4,600 mile return flight involving a dangerous landing and take-off from thin Northern ice.

Test Pilot

Jack was selected from 20 Canadian applicants to attend the Empire Test Pilots' School (ETPS) at Farnborough in England. The first thing he learned was to be checked out in the early jets: the Meteor and the Vampire. The accent at the school was practical flying and acquiring specific skill accordingly. So he flew anything from a Seafury, to a Lincoln and even to an Olympia and Sky gliders. The instruction ration was 1: 5 - a lecture and then into the air. Jack returned to Canada and was posted to the Central Experimental and Proving Establishment (CEPE) at Rockcliffe, the site of Canada's Air Museum today. He moved to Toronto as RCAF Acceptance Pilot at Avro, flying the first Canadian designed jet fighter, the CF-100 Canuck. Also, as acceptance pilot for de Havilland, at Downsview in Toronto, flying Chipmunks, Otters and Vampires. He became the star of the Paris Air Show when he demonstrated a spin and recovery in a CF-100 Canuck.

Avro Arrow and Supersonics

The RCAF assigned him to Avro as Project Pilot for the CF-105 Arrow, the amazing Mach 2 all-weather interceptor. As a true professional, he went south to Elgin AFB in Florida to prepared himself for supersonic flight. Additionally, he attended the Fighter-Interceptor School at Tyndall AFB. Along with Jan Zurkowski, 'Spud' Potocki and Peter Cope, Woodman flew the Arrow six times. With the Canadian government cancelling the Arrow program in 1959, the RCAF once again moved Jack. For it was the era of the Cold War, and the USA was interested in missiles and rockets and space. The buzz words were NORAD, Bomarc and space. The Canadian government thought it wanted in. Three pilots from the RCAF were considered for potential astronauts. Jack Woodman, with experience in the Arrow, was in first place. However, Canadian participation had to be terminated before it even started because of political and economic reasons.

Voodoo and Starfighter

Meanwhile, the Voodoo had replaced the Arrow, and Woodman went back to evaluating aircraft for the RCAF. The



Lockheed Starfighter was eventually selected to be the fighter-bomber for Europe, the CF-104. Lockheed offered a position to S/L Jack Woodman as an Engineering Test Pilot. His duties were the usual testing of various CF-104 models for structural integrity, stability and control, performance, weapons systems development and the rest.

NF-104A Aerospace Trainer

Lockheed named Woodman Project Pilot for this trainer. The USAF wanted to introduce pilots to high altitude flight, handling reaction controls, weightless, the rocket engine, full pressure suit and related experiences. The pilots needed to know what it really was like. The 104 in regular configuration was supersonic. The AT supplemented its turbojet by a liquid booster rocket of 6000 lbs. thrust, which was located just below the rudder. With the rocket engine at full thrust, Jack reached Mach 2.6. Later, he attempted to go not for speed but for altitude, but because of a malfunction, the aircraft went into a spin at 118,400 feet. Jack managed to gain control and level off at 30,000 feet and land. Chuck Yeager was at the controls of one of such aircraft, which went into a flat spin. The 104A crashed but he escaped with severe burns. Another 104A's rocket engine blew up. It was dangerous but rewarding work, especially instructing pilots.

Something Different

The mid 60's saw accelerated interest in Mach 3 SST aircraft. But the US Congress looked at proposals and the competition was closed. It was at this time that Lockheed developed the L-1011. Jack was responsible for most of the simulator development. In 1966 and working for several years in the USA, Woodman became a US citizen. Lockheed appointed him Chief Engineering Pilot, heading a team of 15 test pilots and responsible for flying activity in military and civilian programs. This included the Starfighter, Viking, Orion and TriStar. He then proceeded to fly the L-1011 TriStar around the world, demonstrating its many pluses, especially all-weather capability and certification. ➡

Woodman, cont'd

Together with Don Moore, his co-pilot, he logged 1123 flying hours during these 46 demos to potential buyers, entertaining over 4000 'guests'. This involved flying literally all over the world, contacting the major airlines and governments of the day. The TriStar flew at major air shows in Paris, Farnborough and in Abbotsford. They were busy, but their energies were not wasted. In 1972, the L-1011 began commercial service with airlines in North America, Europe, the Middle and Far East. Because Woodman took a management course at the University of Southern California (USC) and his experience in the commercial field of aircraft, Lockheed appointed him Division Manager of Commercial Operations. As such, he was responsible for engineering and flight testing as well as customer training for the TriStar. Additionally, he headed test pilot teams for the long-range Orion (still used by Canada as the *Aurora*) and twin-jet S-3A Viking. In 1976, he was promoted as Director of flying, Commercial programs and Customer Requirements. Six years later, in 1982, Jack Woodman retired.

Flight Log-Book

Jack's flight log book shows over 10,000 hours of flying time in over 60 types of aircraft. Here are some of them.

Single-engine, Piston: Harvard, Norseman, Chipmunk, Otter, Auster, T-34 Mentor, Athena, Balliol, Hawker Hart, Fairey ULA, Firefly, Seafury, Spitfire, Mustang, Cessna 172, Bonanza, LASA 60.

Multi-engine Piston: Expeditor, Dakota, Mitchell, Devon, Valetta, Viking, Oxford, Dominie, Varsity, Packet, Lincoln, Lancaster, North Star, Bonanza, Cessna 310, Queen Air.

Single-engine Jet: T-33, Vampire, Venom, Hunter, Sabre, F-102, F-106, Starfighter, F11F Tiger.

Mlti-engine Jet: Meteor, CF-100 Canuck, CF-105 Arrow, C-141, Viking, TriStar, JetStar.

Turbo Prop: C-130, Orion.

Gliders: Olympia, Sky.

Retirement

Jack was in the world of aviation for the better part of his life and he continued to stay in touch. He remained a member of the Canadian Aeronautics and Space Institute. Space was one area that he wanted to explore more than he did, but it was not to be. Back in 1960, after he left Avro, he joined the Lancaster-based Society of Experimental Test Pilots (SETP). In 1985, the Society elected him President.

Epilogue

Jack Woodman died of cancer on May 16, 1987 in California in the USA. He was only 62 years old, yet during this short span of years, he managed to live an extraordinarily full life in aviation. Canada received him into the Canada's Hall of Fame for his skill as a test pilot and his dedication and contribution to the field of aviation, both military and commercial. The citation naming him into the Hall of Fame states it succinctly:

"His contributions as an Experimental Test Pilot have done much to improve the safety and efficiency of both civil and military aircraft used in Canada. His pioneering work and internationally recognized abilities as a test pilot are a significant contribution to Canadian aviation."



Members Matter

It is a privilege for me to extend, on behalf of the Board of Directors of AHFC, sincerest best wishes and greetings to all our faithful and supportive members scattered all over North America, on the joyous occasion of the Christmas Season and New 2005 Year. How the months have gone by! It seems like yesterday that we were looking forward to Spring.

Recently I have visited George Harrison from Kapuskasing and Gerry Barber of Perkinsfield, two senior members of AHFC.

May you be blest with health, fulfillment and peace, and enjoy a fine measure of contentment.

Nicholas Doran

Nicholas Doran, Membership