

# 434 Niagara

## BULLETIN



Vol. 26 no 3 Jan-Feb, 2024



## General Meetings

3rd Saturday of each month at

Welland Optimist Club, 38 Patterson Ave., Welland, ON L3B 2C4

Future meeting dates will be advised by email and telephone.

# ***We proudly promote the glorious tradition of the RCAF***

## **434 Wing Board of Directors**

### **2020-2021**

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#### **ROYAL CANADIAN LEGIONS**

|               |            |         |              |
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| Welland       | Branch 4   | Office  | 905-734-3611 |
|               |            | Canteen | 905-734-6601 |
| Port Colborne | Branch 56  | Hall    | 905-834-9512 |
| Fort Erie     | Branch 71  | Hall    | 905-871-8682 |
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**Published by**

**434 (Niagara Peninsula) Wing**

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**Royal Canadian Air Force Association of Canada**

# Report from the Chair January 2024

2024, is the 100 Anniversary of the RCAF. We have plans in place and in the works to celebrate this historic time in Canadian aviation history.

When we reflect on the RCAF the contribution to the defence of Canadian air space as well as commitments overseas we have a great deal to be proud of and we must never forget those that gave their lives to that end since the RCAF was formed.

As a Wing to celebrate this Anniversary, we have approached the City of Welland regarding the planting of a floral display in one of the flower beds in the City. Confirmation just recently received confirms that there is an agreement to this end and we will have a display on Prince Charles Drive (West side just below First Ave. near the fire hall) we have been assured that this will give us good exposure and the location is perfect for growing conditions.

To further celebrate this Anniversary, it was discussed that we might consider having a family BBQ at Chippawa Park, to that end, I sent out an email to the membership outlining the proposal and included that it was time sensitive as per the City, there has been a very limited response and bookings fill quickly so if you are interested in moving forward with this I suggest you let me know ASAP.

At our General meeting scheduled for February 24<sup>th</sup> (George will be in touch) Daniel Rodrique has agreed to give his presentation on his experience in the Ukraine, he has written and published a book titled “**Easy on Donbas**”. It has been some time since we were able to secure a speaker and given the response from his recent presentation at 447 Wing in Mount Hope this was very successful so I ask you all to make an effort to attend this meeting and hear firsthand the experience of someone who was there, the presentation also includes a PowerPoint view.

Once again I am asking for anyone who might know of someone we could ask to be a speaker please come forward and let one of the Board members know.

Having been in contact with Ontario Group Chair Walter Peckham regarding our bylaws, in a recent email from him he states that all recommended changes having now been made and he has perused the update version and has now submitted them to Ottawa for their approval we await a response as of today.

Since we have done very little socially together as a Wing, a recommendation was made that we might try to arrange a trip to CWH sometime over the summer. I want to let you also know that I have a friend that works for Bombardier in Toronto and has offered us the opportunity of a tour, this of course would require a transportation arrangement and once again only if there is enough interest please give me some feedback as these things take time to arrange or if anyone has some ideas once again I ask you to step up and let us know so that we can determine if it might be viable

**Bill Heron (Chair)**

*Per Ardua Ad Astra*



## Indigenous Veterans of Canada in WW2

The very name of our country is derived from the St Lawrence Iroquoian word Kanata meaning village or community according to the current understanding. The Indigenous people of Canada were responsible for our country's name and despite obstacles, they fought for Canada in both World Wars. When the Second World War began in 1939, many indigenous people joined the military as volunteers. When the war began, the RCAF required volunteers to be "of pure European descent and of the white race." The Royal Canadian Navy had similar requirements. With these requirements, most of the indigenous recruits joined the army where they were integrated as individuals. By 1942 the RCAF had exempted Status Indians from this provision. By the end of the war in 1945, over 3,000 First Nations members, as well as an unknown number of Métis, Inuit and other Indigenous recruits, had served including 72 women. The wartime circumstances of Indigenous recruits from Canada were unique. They were denied the full rights and benefits of citizenship under Canada's colonial *Indian Act*. Despite this, they were at the forefront in fulfilling that single most onerous and profound obligation of citizenship: donning the sovereign's uniform and fighting the nation's enemies .



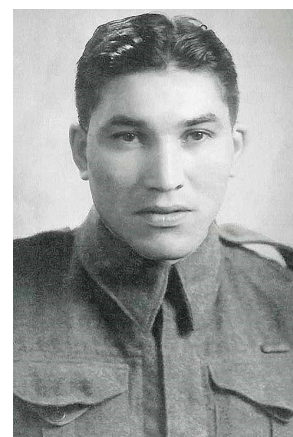
Indigenous War Memorial, Ottawa

Much has been written about the importance of Cree Code Talkers during WW2. Charles Tomkins, a Métis, born January 18, 1918 in Grouard, AB along with other Cree Code Talkers are credited with helping the Allies win the Second World War. His Métis parents were Isabella and Peter Tomkins Jr., both of whom spoke the Cree language and taught their children to do the same. Charles's grandparents, Marie and Peter Tomkins Sr., also reinforced the importance of learning Cree. Charles served as a soldier in the Canadian Army and as a Code Talker in US Air Force for two years during the war.

He translated secret military messages from English into the Cree language as a means of disguising the content from enemies. While Nazi Germany and Imperial Japan were able to break certain Allied codes, they were not familiar with Indigenous languages in Canada. Therefore, languages such as Cree helped the Allied forces to disguise important information including orders for troop movement and the identification of supply lines or aircraft that were to carry out bombing runs from England. After Charles translated the messages into Cree, they were sent to battlefields in Europe, where another code talker translated them back into English and sent them to military commanders. Many military terms such as "tanks," "bombers" and "machine guns" did not exist in Cree, Charles and his partners had to use pre-existing words for non-military subjects in new ways. For example, the code word for the Spitfire plane became *iskotew*, meaning "fire." Similarly, the Mustang aircraft was *pakwatastim*, "wild horse." .



Section of plaque on Indigenous War memorial



Charles Tomkins

## Indigenous Veterans of Canada in WW2 continued

To indicate how many aircraft the military had spotted, code talkers would include the appropriate description and number in Cree. Charles saw action in France, Germany and Holland. In total, six children of the Tomkins family served during the Second World War.

Charles returned to Canada after the war. He re-enlisted in the Canadian Army. First stationed at the Currie Barracks in Calgary, Charles served in the armed forces for another 25 years in different regiments including The Sherbrooke Fusiliers, Royal Canadian Army Service Corps and the Princess Patricia's Canadian Light Infantry. Charles later became a corporal. Charles died on August 20, 2003 in Calgary. He is buried in the Veterans Field of Honour section of the Queen's Park Cemetery in Calgary.

### RCAF

A few of the Indigenous volunteers were able to join the RCAF:

**Sergeant Samuel Jeffries** of Missanabie, Ont., was killed in action while the Royal Air Force's 104 Squadron was targeting Rommel's supply lines on Dec. 28, 1942.

**Pilot Officer Willard Bolduc, DFC** was born in Chapleau, ON, December 28, 1915. Willard's mother was Ojibway (Ojibwe) from Hearst, Ontario, while his father, was Cree from Sherbrooke, Quebec. Bolduc attended school in Chapleau as well as Jarvis Collegiate in Toronto. By joining the air force, he carried on a family tradition of military service. He joined the RCAF on June, 9, 1941 at North Bay, ON, for general duties. Bolduc was reassigned from general duties to aircrew on 1 May 1942 and trained as an air gunner at No. 9 Bombing and Gunnery School in Mont-Joli, Quebec, from July 4th to September 25, 1942. He was promoted to sergeant and sailed to England in October. He underwent further operational training with Britain's Royal Air Force (RAF). After training, he joined the RAF's No. 15 Squadron in Bomber Command.



SERGEANT SAMUEL JEFFRIES  
(Royal Canadian Legion, Chapleau)



Willard participated in several bombing missions over German-occupied Europe as a gunner. On August 28, 1943, which was his 17th operational trip, he shot down a Ju88 coming to attack them on their bombing run. For this and other actions as a rear gunner, Bolduc was awarded the Distinguished Flying Cross (DFC). The citation for his award reads:

*"Pilot Officer Bolduc [he was commissioned on 2 May 1944] has taken part in many operational sorties including attacks on such important and strongly defended targets as Berlin, Hamburg and Essen. In June 1943, while over Cologne, his aircraft was attacked by an enemy fighter. This officer's accurate fire damaged the enemy aircraft which broke off the attack and was probably destroyed. Another time during a sortie against Nuremburg his aircraft was attacked by a Junkers 88. While making the bombing run Pilot Officer Bolduc opened fire and the enemy fighter fell to the ground in flames. At all times this air gunner has set an inspiring example by his keenness and devotion to duty." Bolduc received his Distinguished Flying Cross (DFC) from King George VI.*

F.O. Willard Bolduc,  
DFC

Rather than going to Buckingham Palace to receive his medal,

the King and Queen came to Bourn for the presentation on July 5th, 1944. He was also promoted to flying officer that day. Once Bolduc completed his operational tour of duty, he was repatriated to Canada in November 1944 and released from military service in March 1945. He worked in various occupations in Toronto and died in hospital in that city after a short illness in 1968. He was buried in Chapleau, ON.



# In The News

## Bombardier Global 6500 basis for new Korean AEW&C Aircraft

L3Harris has announced a partnership with Korean Air and ELTA Systems to develop new high-altitude airborne early warning and control (AEW&C) planes for the South Korean Air Force.

The program's AEW&C planes will be based on L3Harris' platform design incorporating **Bombardier's Global 6500** high-altitude business jet, and will include radar technology and AI algorithms developed by ELTA.



L3Harris Strategic Collection & Targeting Programs managing director Mark Kobussen shared that implementing the Bombardier business jet was a decisive choice to keep the deal low-risk and low-cost.

The aircraft will be used for higher-altitude and longer-range surveillance missions.

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## Bombardier Global 6500 selected by US Army as spy plane prototype

The United States (US) Army has selected the Bombardier Global 6500 private jet as the prototype for the High Accuracy Detection and Exploitation System, known as HADES.

The US Army confirmed on January 3, 2024, that Contracting Command-Redstone Arsenal and Army Fixed Wing Project Office had ordered a Bombardier Global 6500, with options to purchase two additional aircraft over a three-year period.



The HADES prototype will be the first US Army-owned large-cabin business jet utilized for Aerial Intelligence, Surveillance and Reconnaissance platforms, with delivery expected on October 1, 2024.

The spy plane prototype will be developed to carry out 'deep sensing' operations, allowing the US military to see strike threats from greater distances.

# In The News

## German Armed Forces places Airbus' largest-ever H145M helicopter order

Airbus Helicopters has secured its largest-ever order for multi-role H145M helicopters, with up to 82 of the aircraft purchased by the German Armed Forces. Airbus confirmed on December 14, 2023, that the German Bundeswehr placed an order for 62 H145M helicopters, with the option to purchase 20 more.

Subsequently the agreement is also the largest-ever order for the HForce weapon management system.



**Airbus H145M Helicopter**

The German Army will receive 57 helicopters, while the Luftwaffe's special forces will receive five. The agreement also includes seven years of support and services.

The Bundeswehr already operates 16 H145M LUH SOF and eight H145 LUH SAR helicopters. The United States (US) Army employs almost 500 helicopters from the H145 family under the name of UH-72 Lakota.

Current operators of the H145M include Hungary, Serbia, Thailand and Luxembourg, and Cyprus has ordered six of the aircraft.

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## Spain orders 16 Airbus C295 maritime patrol and surveillance aircraft



The Spanish Ministry of Defense has finalized a contract with Airbus for the acquisition of 16 C295 aircraft in Maritime Patrol Aircraft (MPA) and Maritime Surveillance Aircraft (MSA) configurations. The contract, valued at €1.695 billion, aims to modernize and enhance Spain's anti-submarine warfare capabilities and strengthen surveillance, reconnaissance, and search & rescue units. It also encompasses training systems, including Full Flight Simulator and Mission System Simulator, along with an initial logistics support package.

The aircraft will be fully designed and manufactured in Spain.

The C295 MPA, tasked with succeeding the P-3 Orion fleet retired in December 2022, will conduct anti-submarine, anti-surface warfare, and intelligence, surveillance, and reconnaissance missions. Capable of carrying torpedoes and various weapon systems, it will operate collaboratively with other platforms, also serving as a flying command-and-control center for the Spanish Armed Forces.

Six of the C295 will be maritime patrol aircraft armed for anti-submarine warfare and 10 will be configured for maritime surveillance.

# In The News

## Canada To Buy Armed Drones For Can\$2.5 Bln

A fleet of 11 MQ-9B Reaper drones, built by U.S. defence contractor General Atomics, will be purchased in a \$2.49 billion package, Liberal MPs announced Tuesday on behalf of Defence Minister Bill Blair, for foreign military deployments as well as coastal monitoring and disaster relief.

The Can\$2.49 billion (US\$1.87 billion) price tag includes ground control stations, hangars and an initial batch of Hellfire missiles, as well as training.



According to a statement, the drones will be stationed at Canadian Pacific and Atlantic coast bases, as well as the Arctic.

Capable of flying 7,200 kilometers and staying in the air for more than 28 hours, they will be used on overseas missions with allies, but also to monitor Canada's vast territory and long coastline. The drones could also support civilian emergency responses to forest fires and floods, the military said.

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## Pakistan Air Force to Acquire Chinese FC-31 Fighter Jets

PAF boss, Air Chief Marshal Baber Sidhu has announced that Pakistan will integrate the Chinese-made Shenyang FC-31 Gyrfalcon fifth-generation stealth fighter into its air force "in the near future." Cost of the FC-31 is estimated to be US \$70 million (vs. US\$170 million for an F-35).

The PAF has an established tradition of buying Chinese designed fighters, as well as co-developing and manufacturing them.

The Pakistan Aeronautical Complex continues to build successively more advanced versions of the JF-17 Thunder, an aircraft that was jointly developed with China's Chengdu.

The JF-17 is the most used Chinese fighter jet worldwide. Its price tag US\$15 to \$25 million makes it cheaper than any fourth-generation fighter on the market.



FC-32



JF-17

Pakistan's long-running conflict with India has made it increasingly dependent on China for relatively cheap advanced military hardware. Pakistan's China-powered air force modernization is ringing alarms in India, driving New Delhi to step up its indigenous fighter program. Pakistan and Turkey are collaborating to develop a fifth-generation stealth fighter to replace its aging US made F-16 fleets. It is unclear how the FC-31 acquisition will impact the collaboration, if at all.

Other Asian countries developing fifth-generation fighter jets include India with their HAL AMCA, Japan with Mitsubishi X-2 and South Korea with its KAI KF-21) .



# In The News

## Germany Backtracks on Eurofighter Decision

In our Nov-Dec 2023 Bulletin we reported that Germany objected to a UK negotiated sale of the Eurofighter Typhoon fighter jet to Saudi Arabia. Germany, Britain, Italy, and Spain jointly build the jet and each can veto deals. On January 7, 2024 German Foreign Minister Annalena Baerbock said Germany is ready to allow sales of Eurofighter jets to Saudi Arabia, having for years blocked arms deals with the Gulf kingdom.



German Eurofighter Typhoon

Baerbock noted that Saudi Arabia and Israel had “not renounced their policy of normalization” since war broke out. “The fact that Saudi Arabia is now intercepting missiles fired by the Houthis at Israel underlines this, and we are grateful for that,” she added. “The fact that the Saudi air force also uses Eurofighters in this context is an open secret,” the minister continued. “Saudi Arabia is a key contributor to Israel’s security, even these days, and is helping to stem the risk of a regional conflagration.”

Nothing is indicated at this time as to whether the UK can revive the Saudi Arabia offer to purchase 48 Eurofighter Typhoon jets. Currently Saudi Arabia is awaiting a price for 54 Rafales from Dassault.

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## South Korean KF-21 Boramae Fighter Jet

The Defense Acquisition Program Administration (DAPA) has confirmed that South Korea is on track to commence the production of its domestically developed KF-21 fighter jet in 2024.

The KF-21 Boramae was developed through the KF-X program, a collaborative effort between South Korea and Indonesia initiated in 2015. The program is expected to reach 8.1 trillion won (approximately US\$6.1 billion) by 2026.



South Korean KF-21 Boramae

Equipped with two F414 engines sourced from GE Aviation, the same engines powering F/A-18E/F Super Hornets and Saab JAS 39E/F Gripen, the KF-21 boasts a passive stealth design and advanced avionics. Unlike 5<sup>th</sup> generation fighter jets, however, it does not have an internal weapon bay. As such, it has been described as a “4.5 generation fighter”.

The Republic of Korea Air Force (ROKAF) aims to acquire 120 KF-21 fighters by 2032 to replace its aging F-4E Phantom and F-5E Tiger fighters.

# In The News

## UK, Japan, and Italy sign international stealth fighter jet program treaty

The treaty marks a key stage of the landmark Global Combat Air Program (GCAP) and the headquarters of the program will be based in Britain. Italy, Britain and Japan will all have equal 33% stakes in the project, the Italian Defense Ministry said in a statement. Britain's BAE Systems Italy's Leonardo, European missile maker MBDA and engine maker Rolls-Royce are involved in the project. Japan's Mitsubishi Heavy Industries, Japanese avionics manufacturer Mitsubishi Electric Corp, and engine makers IHI Corp and Avio Aero are also involved.

The combat aircraft, due to take to the skies by 2035, aims to harness next-generation technologies and become one of the world's most advanced, interoperable, adaptable, and connected fighter jets in service globally. The program is expected to create highly skilled jobs in the UK and in partner countries over the next decade and beyond.

The supersonic stealth jet will boast a powerful radar that can provide 10,000 times more data than current systems, giving a battle-winning advantage.



Artist's Conception of Tempest

The treaty confirmed the UK will host the joint GCAP government headquarters, supporting hundreds of UK jobs and working with Japanese and Italian colleagues. The first CEO will come from Japan. GCAP will attract investment in research and development into digital design and advanced manufacture processes, providing opportunities for the next generation of highly skilled engineers and technicians.

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## France Purchases 42 Rafale Fighter Jets

France has ordered 42 Rafale fighter jets from Dassault Aviation in a deal worth more than U.S. \$5.5 billion, the Armed Forces Ministry announced on January 12, 2024.

The purchase comes as French lawmakers express concerns about the Franco-German project to develop a successor to the Rafale. The **Future Combat Air System**, as it's known, isn't expected to enter service before 2045 or 2050, according to the French Senate's defense committee. The Rafale is considered a 4.5-generation fighter, similar to the Eurofighter Typhoon and Saab's Gripen, and includes stealth technology, the ability to reach supersonic speed without the use of afterburners, engage in combat beyond visual range.

The latest deal is the first major expenditure under France's 2024-2030 military budget law, and will support more than 7,000 jobs across more than 400 companies, the ministry said.

Export orders for the Rafale currently stand at 261 new aircraft; customers including Egypt, India, the United Arab Emirates and Indonesia. In addition, Greece and Croatia have each bought 12 second hand Rafales from the French Air Force. Dassault Aviation said existing Rafale orders, including the new contract, means the jet's production line will be active for the next 10 years.

# ATHOS-A350





# ATHOS-A350 continued



On December 22, 2023 Air France released a video of a recent air display which it undertook with the Patrouille de France aerobatics unit.

The event took place over the Carmargue Region of Southeastern France at the end of September as part of Air France's 90th anniversary celebrations, as well as marking the 70th anniversary of the Patrouille de France. The aircraft included an Air France Airbus A350-900 named "Les Sables-d'Olonne" and Dassault-Breguet/Dornier Alpha Jets for the aerobatic unit of Patrouille de France.



The video is entitled **ATHOS A350**. If you have not already viewed this video with its stunning photography and aerobatics, it is well worth the two minute time to view it on Google or YouTube by searching ATHOS A350.

## Birthdays

### January

Jeanette Lee

Deborah Wilkes Whitehall

Brian Heikila

Mitch Mascitelli



### February

Wesley Pierce

Dan Carr

Julie Sheppard

**At 11:15 am on February 20, 1959 , Prime Minister John Diefenbaker stood before the House of Commons and announced that the AVRO Arrow and the Iroquois engine program were to be terminated immediately.**

Astute Canadians know the story well.

Top management and engineering personnel resigned, and over 14,500 skilled employees found themselves out of work on "Black Friday". The trickle down effect of the cancellation was enormous and far reaching. 650 contracts affiliated with the Arrow program were also cancelled, with an estimated 16,000 jobs lost over the next several days and the estimated number of total jobs affected or lost amounting to some 50,000 workers and support staff. Tragically, the cancellation of the Arrow destroyed Canadian national pride that had become embedded in the Arrow.



Following the cancellation of the Avro Arrow project, CF-105 chief aerodynamicist Jim Chamberlin led a team of 25 engineers from Avro to the NASA's Space Task Group to become lead engineers, program managers and heads of engineering in NASA's manned space programs such as the Mercury, Gemini and Apollo. The Space Task Group team would eventually grow to 32 former Avro engineers and technicians, becoming emblematic of a huge "brain drain" to the U.S.

## **World War 2**

Canada and the Canadian people changed during WW2. There was increased urbanization, industrialization, state intervention in the lives of Canadians, interconnected trade with the United States, and a widespread desire for greater commitment in world affairs.

## **RCAF**

When war was declared on Germany, 10 September 1939, the RCAF had a total strength of 4,000 regular personnel, an auxiliary force of 12 squadrons and a total of 270 aircraft. During the Second World War, the RCAF expanded into the fourth largest air power of the Allied Forces. 232,000 men and 17,000 women enlisted in a service that operated a total of 86 squadrons, including 47 overseas (Europe or South-east Asia). Many other thousands of Canadians fought in the British Royal Air Force or other Commonwealth air forces.

continued

# Black Friday, February 20, 1959 continued

## NAVY

The Royal Canadian Navy began the war with 13 vessels and 3,500 sailors, and ended it as the world's fourth largest naval power with 374 plus ships and more than 110,000 sailors. By 1945 figures, there were: 2 cruisers, 17 destroyers, 68 frigates, 112 corvettes, 67 minesweepers, 12 escort ships, 75 Fairmile motor launches, 9 motor torpedo boats, 12 armoured yachts and vessels of other types.

## ARMY

When war came in 1939, Canada possessed only about 4500 professional soldiers. The greatest single point of weakness in 1939 was equipment. The arms available were almost entirely of 1914-18 pattern; the units, whether of the Permanent Force or the Non-Permanent Active Militia, possessed virtually no transport whatever, although the war now beginning would clearly be the most highly mechanized in history; the Dominion had only begun to develop the basic elements of a munition industry, and with the arms factories of the United Kingdom (Canada's traditional source of supply) working day and night to meet Britain's own requirements, the outlook for a rapid improvement in the armament of the forces was not bright. One specific item of equipment exemplified the general situation. Until 1938 the Canadian military forces did not possess a single tank. In that year two light tanks were received from England. Fourteen more arrived in 1939 on the actual eve of the declaration of war. Yet during the coming struggle Canada was to place in the field two armored divisions and two independent armored brigades. By May 1945, the Canadian army had nearly half a million men in the field.

We have a great deal to thank our veterans for and they will never be forgotten. After World War II, Canada emerged as one of the major military powers. Canadians looked for the good life in the post-war years. They had lived through the Great Depression and the Second World War, and were to enjoy the economic prosperity and optimism of a new era. There was energy, faith in the future and a belief that Canada could play a greater role in world affairs.

From the late 1930s Canada had started to manufacture British-designed planes such as the Hawker Hurricane and AVRO Lancaster for the Allied war effort. Ambitious Canadian politicians and engineers weren't satisfied with this. They decided to forge a world-leading aircraft manufacturing industry out of the factories and skilled workforce built up during the war. Tired of manufacturing aircraft designed by others, this new generation of Canadian leaders were determined to produce Canadian designs. Avro Aircraft was the company that would deliver their dream. "Avro was both incredible in its achievements and central to the nation's aspirations to become an aeronautical powerhouse "The government intended to take Canada from being a small-time assembler of aircraft designed in the UK or US to become an international-level manufacturer the equal of other nations."



**James C Floyd** celebrating his 104th birthday, October 20, 2018 with Chris Hadfield.

Originally as the Chief Design Engineer, and later as Vice President (Engineering), Jim was involved in the creation of the Avro Jetliner and the development of the CF-100 Canuck jet fighter. Most importantly, and famously, he is best known as the **Director of Engineering for the CF-105 Avro Arrow jet fighter.**

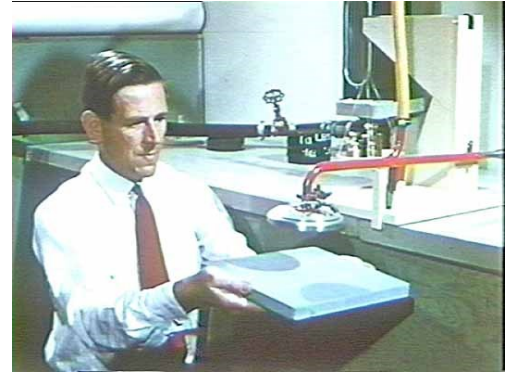


## Black Friday, February 20, 1959 continued

“However improbable, nothing is impossible in a creative mind”. Albert Einstein

Dreams can come true, but you need to be courageous to pursue them. You need to get out of your comfort zone. You need to invest time and energy.

In 1945 Roy H. Dobson, the managing director of A.V. Roe Manchester and a director of the Hawker Siddeley Group visited Canada to arrange the takeover of Victory Aircraft. Dobson had a vision, he had unbounded faith in Canada, in Canadians and in their future. He saw A.V. Roe Canada Ltd with its energy and enthusiasm leading the world in the future of jet flight. Avro's team of engineers was known for their “out of the box” designing. John Frost had worked on the Avro CF-100 before creating a research team known as the "Special Projects Group" (SPG).



John Frost in the lab

Frost first surrounded himself with a collection of like-minded "maverick" engineers, then arranged for a work site. Initially ensconced in the "Penthouse", a derisive nickname for the executive wing of the Administration Building, the SPG was subsequently relocated to a Second World War-era structure across from the company headquarters, the Schaeffer Building, that was secured with security guards, locked doors and special pass cards. At times, the SPG also operated out of the Experimental Hangar where it shared space with other esoteric Avro project teams. John Frost and his team represented the forward thinking that Canadians now wanted to see for their country.

In October 1951, C D Howe October 1951, arranged for Crawford Gordon, then with the Department of Defense Production, to take over as president and general manager of A. V. Roe Canada. Gordon was a person who could make dreams come true. He was comptroller of finance at Canadian General Electric by the age of 21; he was “Minister of Everything” C.D. Howe’s “Boy wonder” at the Canadian Department Munitions and Supply during WWII at 28; he was president of the English Electric Company at 32; he was the top man at the Department of Defense Production and then president of A.V. Roe Canada at 36. By the age of 40, he held directorships in nine of the largest corporations in Canada.

Gordon was a man driven to success and one who believed there was nothing that couldn't be accomplished. James (Jim) Floyd, Chief Design Engineer of Canada's legendary



Sir Roy Dobson & Crawford Gordon Jr.

CF-105 Avro Arrow jet fighter and later Vice-President Engineering) at A.V. Roe Canada, said of Gordon, “he was a man who knew what he wanted and would not hesitate to move the earth to get it.”

## **Black Friday, February 20, 1959 continued**

Under Gordon's encouragement to Avro's designers, Avro offered to design and build the new supersonic jet interceptor identified by the Canadian Chiefs of Staff as needed to counter a Soviet Union bomber threat.

To this day, the CF-105 Avro Arrow is considered to be the greatest technical and aerodynamic achievement in the history of the Canadian aviation industry. The Avro Arrow became a source of national pride, a sense of esteem for Canada and sense of self esteem for Canadians. Canadians had accomplished the seemingly impossible. This should have led to more innovation and higher heights for Canada and its citizens.

As stated, to make dreams come true, you need courage, patience, energy and a willingness to step out of your comfort zone. This was exemplified in the leadership and staff of Avro.

The cancellation of the Arrow and the Orenda engine meant that Canada missed out on technological advancements and innovations in the aerospace industry. The cancellation of the Arrow meant Canada became dependent on purchasing military aircraft from other countries. This dependence affected the nation's ability to control its defense capabilities and technology.

### **National Pride Lost**

The most serious blow the cancellation dealt was to destroy Canadian's sense of national pride. We can estimate the number of jobs lost, the costs lost in the project being abandoned, the cost of the ensuing short lived Bomarc missiles and Voodoo, but there is no way to quantify a nation's loss of pride. Perhaps this is the reason that loss of national pride is not taken into account by those making political decisions.

In terms of GDP per hour worked, Canada currently ranks 18th in the world, way behind the USA which is ranked 9th. This is hardly indicative of a nation filled with pride, courageous, energetic, innovative, willing to do the impossible. We no longer have Avro or the Arrow. We can remember them along with our veterans.



# Sponsors

## Giant Tiger

Wayne Zatorski – Store Owner  
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## McDonalds Restaurant

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## Mike Knapp Ford Sales LTD

Mike Knapp, President  
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