

BARRAGE

The RCA Museum News

THE RCA MUSEUM
CANADA'S NATIONAL ARTILLERY MUSEUM



April 2025

Six New Mannequins



The RCA Museum recently purchased six mannequins. They include four males and two females, all medium size and approximately 5'3" to 5'10". After reviewing our collection, we selected a half dozen military uniforms for display. Additionally, we paired suitable footwear, headwear, and accessories with each uniform.

Young visitors are more engaged with lifelike displays than with static ones. Mannequins spark curiosity and encourage questions about military uniforms, artillery systems and warfare. In the case of the Canadian Artillery, mannequins provide an excellent snapshot of key historical events. They help us to connect over 150 years of Canadian Artillery history and improve storytelling by adding a human touch.

One remarkable piece is a World War II uniform from the Italian Campaign with tropical shorts—an unusual and excellent addition to our display. The women's Battledress and nursing uniforms complement our existing CWAC uniform in the Manitoba Gallery. Additionally, General Simonds's tunic and beret are impressive, and we plan to include them in a future Great Gunner exhibit. The other two uniforms include a Royal Canadian Horse Artillery Other Ranks Uniform dated 1905 and a Reservist Canadian Combat Uniform from the 1990s.

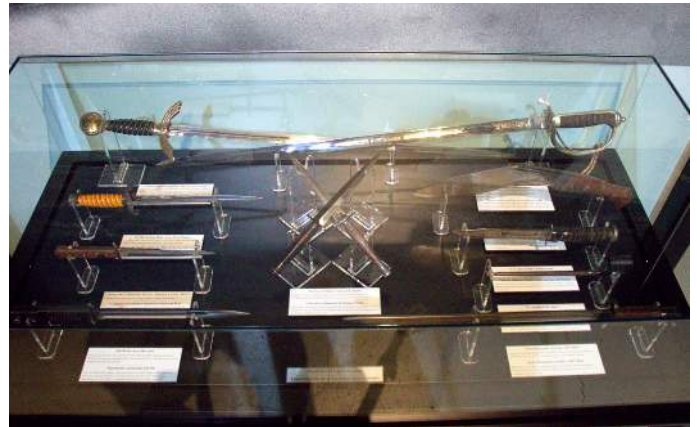
We will continue to make curatorial updates throughout the museum. Adding more mannequins will help visitors learn about notable historical events faster, making our museum displays easier to understand and more memorable. We will do our best to ensure that the uniforms and new mannequins remain in excellent condition, using them sparingly for brief outreach events and in-house museum displays.

Our Latest Exhibit Update



We are thrilled to unveil our latest exhibit update on edged weapons, fuses, mortars, and shells. When we create an exhibit, we want visitors to connect with the artifacts. Our museum displays artillery from the nineteenth century to today, but we cannot tell the whole story without including munitions. Edged weapons symbolize warfare and close combat, while fuses trigger the detonation, and mortars and shells carry the destructive payload.

As we expand our collection, we have many small-edged weapons, fuses, projectiles, and mortars ready for display. Our new collection manager, Will Brandon, painstakingly selected artifacts for the new WW2 Edged Weapons display. It includes Allied knives, German-edged weapons, a WWII German Luftwaffe Officer's Dress Sword, a Royal Artillery Officer's Sword, and two crisscrossed Fairbairn-Sykes commando knives, all prominently displayed on elevated mounts. The display is visually appealing and will capture the attention of many of our visitors.



Our second display features artillery fuses from 1871 to 1945, including the Boxer time fuse, the RL II percussion fuse from the 1870s, and the innovative No. 56 time and percussion fuse from the Boer War. We included five World War I fuses, including the No. 106 MK VII super-quick percussion fuse, used to clear barbed wire during the Battle of Vimy Ridge. Likewise, the display includes five World War II fuses, including the revolutionary variable time (VT) fuse. The Allies invested over a billion dollars in the VT fuse, which relied on radar to detect incoming objects. The display features 13 fuses, each with clear acrylic mounts. It also includes 25-pound high-explosive shell fragments, highlighting battlefield challenges.

Our third display showcases various calibres of mortars: 2-inch, 3-inch, 60-mm, 81-mm, and 4.2-inch. During a recent visit to the War Remnants Museum in Vietnam, I admired their mortar display, which inspired me to create a Canadian version. Mortars often receive less attention in military museums but deserve a prominent place to illustrate their importance in warfare. I also updated our large projectile mount with dozens of anti-air, anti-tank, field artillery, and tank rounds. The towering display creates an imposing presence.

We enhanced the visitor experience by adding three matching murals above the fuse case, projectile display, and mortar case. The fuse mural depicts Gunner's training with VT fuses. The projectile mural features Gunners loading a C1 105mm howitzer with high-explosive rounds in the foreground. The mortar mural shows Canadian soldiers firing an 81mm illumination round, matching one in the display. Each mural shows soldiers using corresponding munitions in the field, helping to explain their purpose.

By Andrew Oakden

RCA Crest by Gunner Paul Gladu

Gunner Paul Gladu, an Indigenous Canadian soldier of unique talent and dedication, crafted the RCA Crest while stationed in the Netherlands on 15 June 1945. The 11-inch crest, made from plywood and bearing the Latin motto *UBIQUE*, meaning 'everywhere,' honours his military service. He presented this distinctive piece to a fellow soldier and friend, Bdr C. Vandermark, whose son generously donated it to our museum in 2021.



The RCA Crest by Gunner Paul Gladu (1945), front and back.

Paul Gladu was one of the 1.1 million Canadians who served during the Second World War from 1939 to 1945. He was also a "Treaty or Status Indian," registered under the Indian Act of Canada. At least 4,200 Indigenous men and women joined the war effort during WW2, serving in Canada and overseas, mainly in the Army, including the Royal Canadian Artillery—a small number served in the RCAF and Navy. Thousands of additional non-status Indigenous men and women also served.

Paul Gladu enlisted with the Canadian Army and served overseas with the First Canadian Army. He was taken on strength by the 95 Field Battery out of Calgary, Alberta. He served in Great Britain with the 15th Field Regiment and, after D-Day, fought across Northwest Europe. The 15th Field Regiment fought with two dozen 25-pounders. In January 1945, the 15th was liberating the Netherlands from the occupying German Army.

In April 1945, the First Canadian Army accelerated the pace of the liberation of the Netherlands and the removal of Nazi occupiers. The local population suffered from a lack of food and fuel shortages. More than 7,600 Canadians lost their lives in the liberation of the Netherlands. On 4 May 1945, the Allies halted operations, and on 7 May 1945, VE Day, came the official end of the war in Europe.

We have limited information on the life of Gunner Paul Gladu after WW2. Our senior curator, Jonathan Ferguson, attempted to contact distant family members in Alberta but could not. We know that in 1966 his health was failing, and he was not receiving a service pension. The donation includes a letter from Vandermark to Gladu dated 10 January 1966. The letter contains advice about obtaining military benefits, notably a service pension.

Thousands of Indigenous veterans returned from Europe in 1945-46, carrying the scars of war and the hope for a better future. They expected generous veteran benefits to be available to them. However, Indian Affairs handled most veterans' cases, and Indigenous soldiers had difficulty accessing veteran programs and re-integrating into communities.

In the mid-1960s, the contribution of Indigenous veterans was largely forgotten. Despite this, they did not give up. They began to organize and push for reparations of veterans' benefits, particularly from the 1970s to 2000. In 2003, the federal government issued a public apology and offered compensation.

The handcrafted RCA Crest is a poignant reminder of the struggles faced by Indigenous soldiers like Gunner Paul Gladu, who fought in World War II but did not receive the same benefits as other Canadians after the war. It is a powerful symbol of their service and subsequent fight for benefits and recognition.

By Andrew Oakden

Lieutenant Philpott's Pistol during World War I

Lieutenant Elmore Philpott, who started his service as an enlisted Gunner before being commissioned in Europe, carried a pistol like many officers during World War I. For Lt. Philpott, the pistol was more than just a means of defence—it symbolized his leadership and his journey from being an ordinary soldier to an officer on the Western Front of the First World War.

During the early stages of WWI, many of the belligerent countries' officers had to go into battle with their standard-issue swords. The realities of trench warfare made sword carrying even more antiquated than already perceived, and many officers decided not to continue carrying their swords into battle. The pistol, however, quickly replaced the status symbol with which swords were once associated. For the Canadian Expeditionary Force (CEF), there is a problem, though: there are not enough of them to go around.

The CEF was not the only force during WWI that lacked a standard service pistol or revolver. As armies rapidly grew exponentially, some military officers privately purchasing their own handguns. As officers often had disposable income, purchasing their own handguns was a simple way to solve the supply chain issue.

Privately purchased pistols had few, if any, restrictions. Ammunition compatibility and sources played a factor in deciding which pistol to purchase. Cost and availability were other factors. They sometimes used an approved list of pistols and revolvers. Many officers who did not have the money for their pistols may have had to wait until they were in theatre to acquire a pistol.

An interesting artifact has recently entered the RCA Museum's collection, the Savage Model 1907 automatic pistol chambered in .380 Auto. The only country that bought this pistol in any numbers during WWI was France, which purchased over 40,000 Model 1907s chambered in .32 Auto. The Savage Model 1907 was the runner-up to the Colt M1911 for the U.S.'s standard sidearm before the First World War.



Initially owned by Lieutenant Elmore Philpott of the 25th Battery and later the Forward Observer Officer of the 33rd Battery, 9th Brigade, Canadian Field Artillery, this pistol likely accompanied Lt. Philpott onto the battlefields of St. Eloi, Ypres (1916), the Somme, Vimy Ridge, Hill 70, and Passchendaele (1917) as well as several other major Great War battles that he participated in. It may have been at Lt. Philpott's side at Amiens on 09 August 1918, when he earned his first Military Cross for clearing out an enemy machinegun nest while commanding a section on the advance with the infantry.

It is also likely that this M1907 pistol was with Lt. Philpott on 02 September 1918 during the Battle of Arras, where he earned the bar for his Military Cross (his second award of the MC) when he sustained wounds but refused to leave the fight for a dressing station until communications were established between his Observation Post and Brigade headquarters.

The story of Lieutenant Philpott and his pistol is a testament to the personal and symbolic significance of weapons like these in times of war. Beyond their functional role in combat, they represent the challenges, leadership, and sacrifices faced by soldiers like Lt. Philpott on the front line. This pistol, now preserved as part of the RCA's proud military history.

By Will Brandon

French 75mm Field Gun

The French 75mm M1897 Field Gun at the RCA Museum has a fascinating history.

Plateaux Arsenal, near Paris, France, manufactured the museum's French 75mm field gun in 1917. The French 75 incorporated a recoil system that did not require resetting after firing a one-piece round. Gunners could effectively fire 15 to 30 rounds a minute, making it the first modern breech-loading, quick-firing gun. The French Army and other Allied nations deployed it by the thousands in WW1.



During the late stages of WW1, engineers modified the artifact field gun to increase its maximum elevation from 18 to 40 degrees. The field gun includes an inscription, "PEUT TIRER DE 0° à 40°," on the trail confirming the origin of the modification, which increased the maximum firing range to 11,000 meters and the shells' capacity to reach enemy trenches.

The US Army deployed the artifact French 75 for the remainder of the First World War, and then it was shipped stateside. In 1919-20, Symington-Anderson Company in Rochester, New York, USA, completed the A4 conversion, in part replacing the barrel and breech screw, also removing the 1918 barrel elevation modification. The improved breech screw rotated 156 degrees instead of the original 120 degrees. The increased rotation allowed for more clearance and ease of operation.

During the 1930s, the US Military modernized most French 75s with split trails and pneumatic rubber tires to tow behind a truck. However, this field gun did not receive the update. The museum has no record of why this gun, with WW1 wooden wheels, did not receive a 1930s modernization upgrade. Instead, the gun kept its original French carriage with the 1919 A4 gun modification.

The artifact French 75 stayed in US Army hands until WW2. In 1941, the US Army made French 75s war surplus, and in 1942, shipped this gun to the Canadian Army, who then sent it to Camp Valcartier for the duration of the war. We have the original Memorandum of Provisional Examination documenting the operational status of the gun. Canada used the French 75 as a training gun and fired the artillery system the equivalent of 878 4/16 'full' rounds, with one full charge equal to sixteen half-charges or four 3/4 charges.

At the end of WW2, the artifact French 75 was in serviceable condition, then shipped to the Royal Canadian School of Artillery, Camp Shilo, in 1949. Curators put the artifact on display starting in 1962 with the official opening of the RCA Museum. From the 1980s to 1996, it was on display at the RCA Battle School in Shilo. In the late 1990s, a wheelwright replaced the original wooden wheels, which were no longer serviceable. Today, the RCA Museum displays the rare and fascinating French 75mm M1897 A4 Field Gun in the Heritage Gallery.

By Andrew Oakden

The Minié Ball and the Advancement of Rifled Muzzle-Loading Artillery

In the late 1840s, the Minié Ball, a cone-shaped lead bullet, significantly changed warfare and drove the development of rifled muzzle-loading artillery from the 1850s to 1890s.

The first conical lead bullet, the precursor to all subsequent rifled bullets, came from Captain Delvigne in 1841. It had a hollow bore with a rim that would expand after firing and engaged rifling in the barrel. Captain Claude Etienne Minié improved the design and came out with the conical-cylindrical shaped soft lead Minié ball in 1846-47. Captain Minié added better dynamics and a lead skirting at the base. The Minié ball was a significant improvement to the traditional round musket ball. When fired from a rifled barrel, the Minié ball expanded at the base, catching the rifling, generating spin, and increasing range and accuracy. With the Minié ball, the infantry could accurately reach targets 250 to 500 yards away instead of 50 to 100 yards with traditional musket balls. The new design with a rifled musket created a functional and lethal small arms weapons system.

The French adopted the new lead bullet with the infantry Minié Rifle, invented by Captain Minié in 1849. The French version used a .702 calibre lead bullet, sighted to 1,000 yards and accurate to half that range. The British adopted the Pattern 1853 Enfield at .577 calibre and sighted it up to 1,200 yards with an effective range of 250 to 500 yards.

Smoothbore muskets were prone to fouling after a few shots, requiring frequent cleaning, while Minié ball muskets did not. The firing procedure included pouring gunpowder down the barrel, removing the Minié ball from the paper cartridge, ramming the bullet down the barrel with a ramrod, packing the charge, and then firing the weapon. The new bullet relied on grease cannellures to stay operational. The traditional muskets had tight ball-to-barrel tolerances, while the Minié ball was loose fitting and expanded to engage the rifling, imparting stability, spin, long range and accuracy.

The British deployed the Pattern 1853 Enfield in the Crimea War (1853-56). In Crimea, the new rifled musket put the Gunners within range of infantry and changed the dynamics of warfare, causing armies to seek out more powerful and longer-range artillery systems. The Gunners were not far enough behind enemy lines and became viable targets, requiring military commanders to rethink battlefield tactics. During the Crimean War, soldiers fought in formation, out in the open, and were vulnerable to the new Minié balls, resulting in significant casualties.

The American Civil War (1861-1865) highlighted the significance of the Minié ball on the battlefield. During the war, Union and Confederate forces underestimated the lethality of the new weaponry, engaging at close range, sometimes 50 to 100 yards, with Minié ball rifles in hand, resulting in high casualty rates on both sides. The introduction of the new bullet led to significant casualties throughout the conflict, including large wounds, shattered bones, and extensive internal bleeding. It demonstrated the brutality and effectiveness of rifled muskets and the need for efficient artillery to counter the new threat.



Two .577 calibre Minié balls for the Pattern 1853 Enfield.



Gunners from the Montreal Garrison Artillery with a 64-pounder RML, 1890.

During the American Civil War, both sides started with traditional muzzle-loading muskets and incorporated new weapons technology as they became available. The Union Army and the Confederacy deployed a variety of weaponry, from the smoothbore flintlock muskets to rifled muskets, such as the Springfield Model 1961 and the Pattern 1853 Enfield. Additionally, the Union Army and Confederate armies had modern breech loaders and repeaters, rifles that used metallic cartridges or one-piece bullets. Christopher Spencer engineered a breech-loading infantry rifle that fired seven one-piece bullets. The Union Army issued over 61k Spencer Carbines during the American Civil War.

The French and British adopted improved rifled muzzle-loading muskets, which were already inferior to breech-loading rifles first developed in the 1840s. Muzzle-loaders could only fire a maximum of two rounds a minute, while breech-loaders had unlimited possibilities, including metallic one-piece bullets and clips. In 1866, the British Army converted Pattern 1853 Enfield's to breech loaders, which used metal cartridges and the Minié ball technology. They also began purchasing breech loaders, such as the Snider-Enfield Rifle. The RCA Museum has examples of both rifles on display in the Weapons Vault.



Top: Pattern 1853 Enfield; bottom: converted Pattern 1853 Enfield (Snider-Enfield Rifle Mark I)

The impact of the Minié ball required the British Artillery to increase their firepower throughout the 1850s-60s. Just as muskets evolved with Minié balls and rifled barrels, the guns evolved with comparable adaptations. Gun designers responded to the challenge by introducing rifled artillery. The early guns had rifling, or deep spiral grooves the length of the inside of the barrel, allowing for projectile stability and precision. Along with the rifled barrels, the artillery projectile changed from spherical to bullet shaped. The more inventive conical-shaped shells gripped the rifling, which doubled the range.

Other artillery advancements included the percussion tube, replacing the slow-match. Captain Boxer introduced a time fuse made of a wood tube with clearly defined time intervals that improved the effectiveness of shells. The artillery also improved percussion fuses to reduce misfire and ensure explosive charges detonated at the correct interval. Improved time and percussion fuses made the artillery more effective against unexposed and hidden opponents on the battlefield.

The British Artillery used new heavy rifled guns, 68-pounders and 8-inch guns, in the Crimean War during the Siege of Sevastopol (1854-1855). The new guns were experimental, with a range of 2,600 yards, and proved superior to smoothbore cannons. During the Civil War, the Union Army and the Confederacy deployed rifled guns such as the Parrott Rifle and Rodman Gun in medium and large calibres.

The British Artillery needed rifled guns with modern conical-shaped projectiles. In 1858, the Board of Ordnance adopted rifled breech-loading guns, Armstrong Guns, in eight calibres - a short-lived initiative. The Armstrong guns fixed the windage problem and used percussion primers. They effectively used wrapped wrought-iron technology that made the barrels robust. The Armstrong company produced approximately 3,400 rifled breech-loading guns from 1859-62.



7-pounder RML Shell

The breech-loading guns proved unreliable and overly expensive. The British Army stopped production in 1864 and reverted to muzzle-loading rifled ordinance. A British military committee determined that muzzle-loading rifled models were superior to breech-loading rifled guns. From 1871 to 1895, the British focused on muzzle-loading rifled artillery. The British concluded these guns were easy for gunners to operate and more economical to produce. They adopted percussion primers and more complex wrought iron barrels from the Armstrong guns, which proved more effective than the traditional methods.

Smoothbore cannons, such as the 9-pounder smoothbore, remained operational in Canada with field units until the 1870s. The cannons were inaccurate, had poor ballistics, and suffered from excessive windage with an effective range of 1,000 yards. The field artillery went directly from smoothbore artillery to rifled muzzle-loading guns in the 1870s. The new rifled muzzle-loader, such as the 9-pounder RML, made traditional artillery obsolete and fired shells twice the distance with greater accuracy and lethality. Improved bullet-shaped shell designs resulted in formable artillery systems on the battlefield. The standard munitions were canister shot, grape shot, solid shot, explosive (common) shell and shrapnel shell.



9-pounder Rifled Muzzle Loader in the RCA Museum.

The new rifled muzzle loaders (RML) had shells made from cast iron, containing a bursting charge of explosives and several rows of brass studs on the outside. The RML barrel had several deep and wide grooves to accommodate the studs on the projectiles. The RCA Museum has an assortment of RML shells on display, 7-pounder to 8-inch shells weighing 180 pounds. The artillery designed 7-inch and larger guns for coastal defence. They made these large shells to pierce the armoured hulls of enemy ships.

The Canadian Artillery used small RML shells, such as the 7-pounder and 9-pounder, against enemy troops. The British converted 3-pounder smoothbores into 7-pounder RML guns by boring out the old barrels and adding rifling for elongated shells. In the 1870s, the British deployed six bronze 7-pounder RMLs during the Red River Expedition, led by Colonel Garnet Wolseley. The RCA Museum has one 7-pounder RML shell on display with a percussion fuse attached. The RCA Museum has a 32-pounder case or canister shot filled with lead grapeshot on display, used against advancing troops at close range.



Cannonball and RML Shell display at the RCA Museum.

In the late 1840s, the introduction of the Minié Ball marked a turning point in warfare. The hollow-based Minié ball was battlefield tested during the Crimean War (1853-56) and the American Civil War (1861-65) and proved effective at inflicting bodily injury on opposing forces. It enhanced the effectiveness of infantry musket fire, enabling soldiers to target enemy artillery from greater distances accurately. This advancement played a crucial role in the evolution of rifled muzzle-loading artillery, which experienced significant development from the 1850s to 1890s. The Minié ball, musket rifling, and advancements in artillery profoundly shaped military strategy, leaving a legacy that extended into the 20th century.

1 Drone Troop 1968-1970

Canada has been involved in the development of military drone technology since the early days of UAVs (Unmanned Aerial Vehicles) in World War II. In the 1950s and 1960s, including the AN/USD 501 Surveillance Drone from 1965 to 1969. Canadair developed the 8-foot, 200-pound, jet-powered, surveillance drone that travelled at near the speed of sound. The purpose of the drone was to fly into enemy territory, take photos, and then return to a pre-programmed designated area. The RCA Museum had one 501 Surveillance Drone on display for decades. Many visitors found it perplexing that Canada had the technology to operate UAVs over fifty years ago.

Army Command in Ottawa authorized the formation of the first UAV (1 Drone Troop), RCA, in August 1968, commanded by a young Captain, A. V. Harris. Sixty-eight soldiers of all ranks, coming from all parts of Canada, with the majority from 1 Locating Battery in Winnipeg, joined the new drone troop in Shilo, Manitoba. The RCA chose personnel for the unit based on experience with surveillance drones, sound ranging, surveys, radars, and counter-bombardment. The unit included operational support from photographers, image interpreters, instrument and electrical mechanics, airframe mechanics, radar technicians, and metalworkers.



AN/USD 501 Surveillance Drone

After formation, Captain Harris lacked equipment, including the AN/USD 501 Surveillance Drone system later provided by the US Army. Initially, the 68 RCA soldiers received refresher training in their specialized fields and operational training on the AN/USD 501 Surveillance Drone. Most were cross-trained during a seven-week artillery course, covering the C1 105mm and M109 155mm in communications and driving. During specialized drone training in Montreal, two Canadian officers and 18 other ranks trained with British and German soldiers in July 1969.

The main task of the 1 Drone Troop was the tripartite demonstration conference of the AN/USD 501 Surveillance Drone. Great Britain and Germany also participated with military and civilian representatives in the trials, starting on 31 October 1969. During the testing, they performed six special flights of the 501 Surveillance Drone. They completed the trials on 6 November 1969, packaged the equipment, and returned it to the US via Canadair Ltd. After the trials, most soldiers left for a well-deserved annual leave. The results of the trials were classified, and by mid-November, the British and German troops returned home.



AN/USD 501 Drone Trials Unit 7 November 1969

In January 1970, personnel from 1 Drone Troop underwent artillery refresher training at the School of Artillery in Shilo. In February, the Base Commander, Colonel Gunter, inspected the troops at Building L-60. Then Captain Harris announced that 1 Drone Troop would disband by June 1970. On 30 May 1970, they had their last official function with a wind-up dance, including a barbecue with lobster and steaks, beverages, and a band. Each member received a 40-ounce engraved mug with the Base Commander wishing them farewell. Most soldiers either stayed in Shilo or deployed to bases across Canada. Captain Harris left for Borden to get married, then for a posting in Ottawa.

DONATE

Thank you for your support! Donations help us to fund curatorial projects and pay the salaries of summer students.

I would like to support The RCA Museum with a monetary donation of:

☐ \$50 ☐ \$100 ☐ \$500 ☐ \$1,000 ☐ Other: _____

Name: _____

Street Address: _____

City/Province: _____

All donations are promptly processed and a tax receipt provided.

Postal Code: _____

Telephone: _____

Email: _____

Payment Method:

Please send your donation by cheque payable to *The RCA Museum* – Box 5000 Station Main, Shilo, Manitoba R0K 2A0, Canada.

All monetary donations are appreciated and will be recognized in The RCA Annual budget.

Please check the following that apply:

1. I consent to my name being published on the RCA website.

☐ Yes ☐ No, I wish to remain anonymous.

2. I consent to be on The RCA Museum mailing list and receive the Quarterly Newsletter (Barrage).

☐ Yes ☐ No, I do not consent.

Contact Us

Pour nous joindre

Telephone : (204) 765-3000 Ext. 258-3570
Fax: (204) 765-5289
Email: rcamuseum@forces.gc.ca
Website: rcamuseum.com
Facebook: RCA Museum

The Royal Canadian Artillery Museum (The RCA Museum)
Building N-118
CFB Shilo
P.O. 5000, Station Main
Shilo, Manitoba R0K 2A0

Musée de l'Artillerie royale canadienne
(Musée de l' ARC)
Bâtiment N-118
BFC Shilo
C.P. 5000, succursale Main
Shilo (Manitoba) R0K 2A0

Telephone : (204) 765-3000 poste 258-3570
Facsimile : (204) 765-5289
Courriel : rcamuseum@forces.gc.ca
Site Web : rcamuseum.com
Facebook: RCA Museum

Director/Directeur
Senior Curator (On Leave)
Assistant Curator/Conservatrice adjointe
Collections Manager/Gestionnaire des collections
Front Desk/Reception

Andrew Oakden
Jonathan Ferguson
Dayna Barscello
William Brandon
Lisa Fischer

Ext/poste 258-3763
Ext/poste 258-3531
Ext/poste 258-3577
Ext/poste 258-4563
Ext/poste 258-3570