

BARRAGE

The RCA Museum News

THE RCA MUSEUM
CANADA'S NATIONAL ARTILLERY MUSEUM



October 2026

KOREA 75: Canada and the Korean War



Our new temporary exhibit, *KOREA 75: Canada and the Korean War*, looks at Canada's role in a conflict often overshadowed by the two world wars. More than 26,000 Canadians served in Korea between 1950 and 1957. The war also has a strong connection to Shilo and the Royal Canadian Artillery. The 2nd Regiment, Royal Canadian Horse Artillery formed and trained at Shilo before deploying overseas.

Visitors can move through recreated fighting positions, see a 25-pounder gun position and examine weapons, uniforms, equipment, photographs and propaganda from the war. The exhibit covers the Battle of Kap'yong, Canadian artillery operations, life in the trenches, battlefield propaganda and the changing nature of the fighting. Once the front stabilized, the war became a hard, static struggle of trenches, bunkers, artillery and patrols.

The exhibit also covers stories that are not as well known. One is the Canoe River train disaster of 21 November 1950, when 17 soldiers were killed and 42 injured while 2 RCHA was travelling west for deployment to Korea. Another section looks at Canadian Air Observation Post pilots. Our Auster aircraft represents the light aircraft flown by Canadian Gunners to locate targets and direct artillery fire. These pilots flew low and close to the front to support the guns.

Senior Curator Jonathan Ferguson led the research and development of *KOREA 75* over the past ten months. He selected the artifacts, developed the stories and worked with the museum team to build the exhibit.

If you have not seen *KOREA 75* yet, come see it. There is a lot to take in, from the recreated positions and artillery to the uniforms, weapons and personal stories. It is one of our largest temporary exhibits in recent years and gives a strong Canadian and Gunner view of the Korean War.

New Officers' Mess Displays Completed

The RCA Museum completed a new permanent display project in the CFB Shilo Officers' Mess on 11 September. The project added four mannequin displays covering the RCA, PPCLI, Camp Shilo and women in the Canadian military. The idea began in October 2025 when Major Brent Neal, then President of the Mess Committee, approached the Museum about adding more history and heritage to the Officers' Mess. He had seen similar displays at the Seaforth Highlanders' mess in Vancouver and thought Shilo could do something similar.



The project was a good fit for the Museum. We hold a large collection, much of it in storage, and the Officers' Mess gave us another place to display artifacts and tell stories directly connected to Shilo. Over the following months, museum staff selected uniforms, researched and wrote the panels, ordered new display cases and prepared the mannequins. We completed the installation on 11 September, well ahead of the original November target.

The first display features a Canadian Women's Army Corps battledress uniform and a panel on women in the Canadian military, including their wartime service at Camp Shilo. The RCA display features an officer's khaki cotton shirt and shorts, representing the Italian Campaign. Its panel covers the history of the Royal Canadian Artillery at Shilo, from Second World War training through the Cold War and into the present day.



The PPCLI display uses a combat uniform to represent the Medak Pocket in Croatia in September 1993. Its panel covers the PPCLI connection to Shilo, including the move of 2 PPCLI from Kapyong Barracks in Winnipeg to CFB Shilo in 2004. The final case features an Afghanistan-era uniform and a panel on the history of Camp Shilo.

The project cost approximately \$50,000, with the new display cases making up a large part of the cost. We can change the uniforms, artifacts and interpretation in the future as needed. Moving the large cases into the Mess took some effort, but the installation went well.

The finished displays look sharp and fit the Officers' Mess well. They put more of the Museum's collection on display and bring Shilo's history into the everyday life of the Officers' Mess. The project also shows what the Museum and CFB Shilo units can accomplish by working together.

On Time and on Target: Watches at the RCA Museum

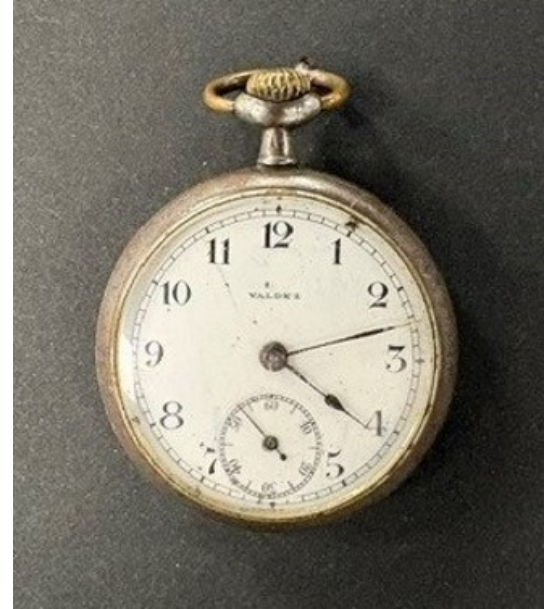
From the creeping barrages that helped Canadian troops capture Vimy Ridge to the coordinated fire support delivered during the Battle of Panjwahi, artillery has always depended on precise timing. For generations, Canadian Gunners carried that precision in their pockets and on their wrists. A watch may seem like an ordinary personal item, but on the battlefield, accurate time could mean the difference between a mission's success and failure when rounds are needed to arrive on time and on target.

The RCA Museum holds a number of timepieces connected to Canadian military service from the First and Second World Wars and beyond. Three watches in the collection, belonging to Sgt George Johnston Oliver, Lt E. Stanley Beacock, and CWO W. "Rocky" Lunan, illustrate how military personnel relied on accurate timekeeping throughout their careers.

Sergeant George Johnston Oliver, DCM, MM**, of Brandon, Manitoba, was among the first Canadians to arrive in France in April 1915. He carried a silver Valdez pocket watch while serving on some of the First World War's most dangerous battlefields.

Oliver earned his first Military Medal at Vimy Ridge, a second at Hill 70, and a third at Hill 62. His watch accompanied him through each of these campaigns. The Valdez trademark belonged to the same Swiss company that owned the Omega brand.

Although not a Gunner, Oliver served as a linesman with the Canadian Divisional Signals Corps, maintaining the telephone and telegraph lines that connected units across the battlefield, including artillery formations. It was demanding and dangerous work, often carried out under enemy fire. His watch helped him keep track of time while carrying out those duties. The case remains engraved with his name, regimental number, and CDSC identification.



Oliver's watch on display at the RCA Museum



The watch sent to Beacock while in Europe

Today, Oliver's pocket watch is displayed in the RCA Museum, providing a tangible link to a soldier who served through some of Canada's most significant battles of the First World War.

Nearly three decades later, Lt E. Stanley Beacock, RCA, was serving in Northwest Europe during the Second World War when his parents sent him a watch from home. The Swiss-made Roman wristwatch featured a hand-wound movement and a military-style fabric strap. For a soldier overseas, it was both a practical tool and a reminder of family far away.

Beacock served with a counter-mortar radar unit, where accurate timing played an important role in coordinating artillery operations. He would later receive a second watch from his hometown. In Allenwood, Simcoe County, Ontario, returning servicemen were presented with watches as a token of appreciation for their wartime service.

Together, these two watches represent different connections to home. One came from family during wartime service overseas; the other reflected the gratitude of the community to which Beacock returned.

In the decades after the Second World War, watch manufacturers increasingly produced and marketed timepieces specifically for military use. One example of this at the RCA Museum is the Watch, Wrist, General Purpose (NSN 6645-952-3767). CWO W. "Rocky" Lunan was issued this watch which was made in July of 1975 by the Benrus company in the United States. The hand-wound watch consisted of a green plastic case, acrylic glass and a green nylon strap. The intent of the design was a low-cost watch that would be disposed of rather than repaired.

Rocky wore this watch at various points during a military career that spanned 37 years, from 1947 to 1984. After retiring, he joined the RCA Museum as a curator and remained there until 1993. In 1986, he donated the watch to the museum and signed the deed of gift as both "Donor" and "Curator," a fitting detail for someone who spent years preserving military history.

Rocky's watch spent nearly four decades in storage. When museum staff recently brought it out and wound the crown, the second hand began moving once again. The luminous hands and markers no longer glow as brightly as they once did, but the movement still keeps reliable time.

It served Lunan well during his years with 1st Light Battery (Para), 1 RCHA, and later during his United Nations deployment to Egypt in 1977.



Rocky's issued watch with RCA strap added by Rocky



Garmin GPS watches commonly worn by today's Gunners

Canadian Gunners continue to rely on precise timekeeping to coordinate operations and accomplish their missions. The hand-wound watches carried by Oliver, Beacock, and Lunan have largely given way to digital timepieces. Durable Timex watches and rugged Casio G-Shocks became common on soldiers' wrists during the 1990s and 2000s.

Today, many soldiers wear Garmin watches that combine timekeeping with GPS navigation and other digital tools. Capabilities that were once available only through dedicated equipment carried by commanders can now be found on a device worn on the wrist.

The wristwatch has evolved from a simple timekeeping tool into a compact navigation and information system. Yet the fundamental requirement remains unchanged. Whether an artillery officer checked a pocket watch before a First World War barrage or a Gunner today glances

at a GPS-enabled watch before a mission, accurate time remains central to the profession.

The watches preserved at the RCA Museum remind us that military history is not found only in guns, vehicles, uniforms, and medals. Sometimes, it can be carried in a pocket or worn on a wrist.

Director's Update: Camp Shilo Display

Museum updates often begin with a visitor's question. That was certainly the case with our recent refresh of the Camp Shilo display in the Manitoba Room. During tours, visitors regularly ask about Shilo's military history and its connection to southwestern Manitoba. Those questions led my collection manager and I to develop a new display that better explains Camp Shilo's history.



We added a new glass plinth that raises the back tier and gives the case greater depth. Artifacts were repositioned, several new items were added, and a large interpretive panel was installed above the display to provide historical context. Together, these changes create a more engaging presentation and help answer many of the questions we hear on tours.

Camp Shilo's history extends well beyond the Second World War. Military activity in southwestern Manitoba began with Camp Hughes during the First World War. In the interwar years, the Canadian Army selected land near Spruce Woods for its open terrain and rail access, and Camp Shilo was established in 1928.

Construction accelerated in the 1930s as part of Depression-era relief projects. Buildings rose from 1932, and formal training began by 1934. During the Second World War, the camp expanded rapidly as artillery schools and infrastructure grew to meet demand.

Questions about training at Camp Shilo during the Second World War are common. On the upper tier, a 30-round Bren light machine gun magazine sits beside a 1942 photograph of Royal Canadian Artillery soldiers tackling an obstacle course. Nearby are two Camp Shilo Information Booklets from 1949 and 1951, offering a glimpse into life on the base.

A Second World War-era Camp Shilo pennant anchors the lower section of the case. A linked .303 ammunition belt for the Browning Mk II machine gun and a 10-round Lee-Enfield magazine reflect weapons training. Among them is a miniature hockey stick from the 1994 Land Force Command championship—a reminder that sport provided comradeship and balance amid military life.

Another frequent question concerns daily life on the base. One of the most revealing artifacts is a small red civilian visitor pass from the 1950s. Numbered and tightly controlled, it tracked civilians entering the base during the early Cold War. Its simple design speaks to the security and routine of the period.

After 1945, Shilo became a permanent home for artillery training. The school became the Royal Canadian School of Artillery and, following Unification in 1968, Canadian Forces Base Shilo. Today, it remains a vital military training centre while maintaining close ties with surrounding communities.

The objects in this case connect visitors directly to generations of soldiers who trained here. The next time you visit, I invite you to spend a few moments with the case. You may discover something new—or leave with a question that inspires the next update.

The Ends of the Earth Hit Close to Home: Albert and William Douglas

Readers of *Barrage* will be familiar with the story of the Ross brothers, who served and died in the First World War. Recent research in the RCA Museum's collections has fleshed out the similarly poignant story of Albert and William Douglas, brothers who served and perished under vastly different circumstances in the Second World War. In 1993, Doreen Chalmers donated wartime items from her uncles Albert Douglas, William Douglas and William Allan to the RCA Museum. Investigating the stories of brothers Albert and William has uncovered connections ranging from the North Atlantic to the South Pacific.

Albert Douglas was born in Montreal on 26 March 1914 to John and Elizabeth Douglas. When he was a child, the family moved to downtown Winnipeg, settling at 346 Carlton Street. Albert attended three years of high school at the nearby Hugh John Macdonald School but left at the age of 16. He completed an apprenticeship as a weaver and worked at a farm in Ontario for three months. In 1932 during the Great Depression, Albert joined the Royal Canadian Naval Volunteer Reserve. He trained at HMCS Naden (now CFB Esquimalt) as an Ordinary Seaman but released seventeen months later because of civilian work commitments. When the Second World War began, Albert was working as a salesperson for British American Oil Company selling tanker trucks, although his post-war ambition was to be a commercial artist.

After reenlisting as an Able Seaman on 26 January 1940 in Winnipeg, Albert joined the Active Service on 8 July 1940 and proceeded to Halifax for training aboard the armed yacht HMCS Renard. He married Alma Beatty of Carlyle, Saskatchewan and their daughter Naomie was born in 1941. By May 1942, Albert was serving aboard HMCS Ottawa, escorting convoys from St John's, Newfoundland. Late on the night of 13 September 1942, HMCS Ottawa was torpedoed by U-91 in the North Atlantic. Disabled by a blow to its port bow, the destroyer struggled on for a few minutes until a second torpedo struck its starboard side, broke it in half and sent it to the bottom. Douglas was among 134 sailors and merchant mariners who lost their lives. He was 28 years old.



Able Seaman Albert Douglas and the Memorial Cross presented to his mother..

At the time of Albert's death, his parents were living in Keewatin (now part of Kenora) in Northwestern Ontario, while his wife and daughter resided near the naval dockyards in Dartmouth, Nova Scotia. His widow and mother each received a Memorial Cross, and Alma presumably received his other medals. The RCA Museum holds the Memorial Cross presented to Albert's mother Elizabeth.

Albert's brother William was about eight years older and had moved to the USA, settling in Philadelphia. William and his wife Caroline lived at 2091 East Venango Street in a two-storey corner rowhouse

bordering an industrial area. When he joined the US Army in 1943, William worked for the Elliott-Lewis home insulation company.



Staff Sergeant William Douglas and his medals: the Purple Heart, American Campaign, Asiatic Pacific Campaign, and World War II Victory medals, with ribbons for the Bronze Star and the Philippine Liberation medal below.

By July 1944, Staff Sergeant William Douglas was serving overseas in the Pacific Theatre with the 113th Engineer Combat Battalion of the 38th Infantry Division. The 113th progressed from New Guinea to the Philippines, through Leyte, Luzon, and Subic Bay to the Bataan Peninsula. By the spring of 1945, the 113th were clearing enemy positions in Manila Bay, where the surrounded Japanese forces occupied nearly impregnable fortifications built by the United States before the war. Given their suicidal resistance, the Engineers developed a deadly technique to neutralize them: after pumping diesel or gasoline into the air vents, incendiaries detonated the fortifications with devastating results. Amid this carnage, SSgt Douglas was killed on the island of Corregidor on 12 April 1945 at the age of 39. The next day, the capture of Fort Drum and Fort Hughes marked the end of the battle for Manila Bay.

SSgt Douglas was buried in the Manila American Cemetery in the Philippines. The American Consul-General in Winnipeg presented William's parents with his medals. The RCA Museum holds these decorations, including the Purple Heart, the American Campaign, the Asiatic Pacific Campaign and the World War II Victory medals. The Asiatic Pacific medal includes four miniature devices: stars indicating that William served in three separate operations, as well as an arrowhead for participating in an amphibious assault. Two mounted ribbons also came with the donation, for the Bronze Star and the Philippine Liberation medal. The medals themselves were likely presented to his widow, which would explain why his parents only had the ribbons.

The medals of the Douglas brothers are tangible reminders of the human cost of war, from the cold mid-Atlantic to the jungles of the Philippines. John and Elizabeth Douglas had at least one other son and a daughter, but no memorial could fill the hole left in their family by the loss of these two young men. The RCA Museum is proud to preserve the memories and present the legacies of Albert and William Douglas.



In this undated newspaper photograph, the American Consul-General presents William Douglas' medals to his parents in Winnipeg.

By Jonathan Ferguson

A Silver Gate from Korea

One of the more unusual objects in our new *KOREA 75: Canada and the Korean War* exhibit nearly remained forgotten in storage. It is a small model of Seoul's South Gate, Namdaemun, measuring about nine inches wide, five inches high and four inches deep. The base is wood, giving the piece surprising weight for its size. Above it sits a silver-plated model of the gate. The back simply reads "South Gate Seoul." There are no maker's marks or silversmith stamps.



A plaque on the front provides the key to its history: "Presented to 3 RCHA by HQ 25 Cdn Inf Bde on termination of their tour in the Far East Korea 30 Nov 54." Museum staff recently polished the artifact before placing it on display. Despite its clear connection to Canadian service in Korea, the piece was never accessioned into the museum collection. The artifact remained in storage with non-public property associated with the reduction of 3 RCHA to nil strength in 1992.

The inscription places the artifact at the end of Canada's main military commitment in Korea. Canadian soldiers entered combat in February 1951. Canadian Gunners followed soon after when 2 RCHA arrived in May with 25 Canadian Infantry Brigade. The artillery commitment continued with 1 RCHA, then the 81st Field Regiment, redesignated 4 RCHA during its Korean tour, and finally 3 RCHA.

3 RCHA arrived in Korea in May 1954, nearly a year after the Armistice of 27 July 1953 ended the fighting. The shooting had stopped, but the situation remained uncertain, and Canada kept thousands of troops in Korea. 3 RCHA maintained the Canadian artillery presence until late November 1954. The date on the artifact is significant: 30 November 1954. Headquarters, 25 Canadian Infantry Brigade left Korea only two days later, on 2 December. Canada kept a smaller force in the region until 1957, but the brigade's departure marked the end of the main Canadian Army commitment.

Namdaemun was a fitting choice for the presentation. The gate had stood in Seoul for centuries and remained one of the city's best-known landmarks. For 3 RCHA, the model became a reminder of the regiment's Korean service and the final months of 25 Canadian Infantry Brigade in Korea.

What happened to the model after 1954 remains less clear. 3 RCHA later served in Germany and was reduced to nil strength on 31 July 1992. The piece likely reached the RCA Museum with material connected to the regiment in the 1990s. For decades it sat unaccessioned in storage. Today, more than seventy years after its presentation in Korea, the small silver-plated gate is on display in *KOREA 75*, preserving a direct link to 3 RCHA, Canadian Gunners in Korea, and the end of Canada's main military commitment.

By Andrew Oakden

McNaughton and the Science of the First World War Barrage

In November 1921, a young Canadian artillery officer named Andrew George McNaughton sat down at Staff College in Camberley and attempted to answer one of the most dangerous questions raised by the First World War: how close could infantry safely advance behind their own artillery fire?

The result was a dense but remarkable study titled *The 18-Pdr Field Gun in the Close Support of Infantry*. Today, the original paper survives in the collection of the Royal Canadian Artillery Museum, where it has remained since the McNaughton family donated it in the 1960s. More than a century later, the document still feels strikingly modern. Part battlefield study, part engineering analysis, and part warning about the limits of technology, it captures the moment artillery became a science as much as a weapon.

When McNaughton wrote the paper, the war had ended only three years earlier. The conflict had shown with brutal clarity that artillery dominated the modern battlefield. Infantry attacks depended on guns for survival, while defensive systems relied on artillery fire to break assaults apart. Entire offensives succeeded or failed according to whether artillery could destroy enemy positions while protecting advancing troops.

One of the war's most important tactical developments was the creeping barrage. Batteries fired continuously while shellfire advanced across the battlefield in carefully timed stages. Infantry followed as closely as possible behind the explosions, sometimes only yards away. The tactic proved highly effective because defending troops could not properly man machine guns or rifles until the barrage passed. If attackers stayed close enough behind the barrage, they could reach enemy trenches before defenders recovered. Canadian and British forces used creeping barrages with considerable success during battles such as Battle of Vimy Ridge and throughout the Hundred Days Campaign in 1918.

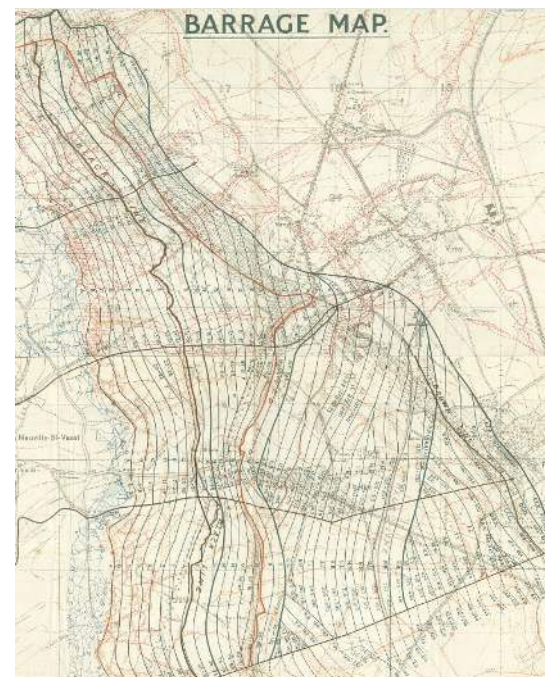
Yet the tactic carried obvious dangers. If the barrage moved too quickly, infantry lost protection and stalled under enemy fire. If it moved too slowly, advancing troops risked entering their own shellfire. If shells fell short, friendly soldiers died. Success depended on timing, coordination, discipline, and accuracy under chaotic battlefield conditions. That problem fascinated McNaughton.

Reading the paper today, one quickly realizes that McNaughton approached artillery less as a traditional gunner and more as an engineer confronting a mathematical problem. Before the First World War, artillery officers often relied heavily on judgement, experience, and direct observation. During the war, artillery evolved into something far more technical. Guns increasingly fired indirectly at targets hidden beyond ridges, smoke, villages, or darkness. Crews relied on maps, survey data, calculations, weather reports, and precise measurements rather than direct sight of the enemy.

McNaughton embraced that transformation completely. Long before he commanded the First Canadian Army during the Second World War, he had already established himself as one of Canada's most intellectually gifted artillery officers. Trained as an engineer at McGill University, he possessed an unusual comfort with mathematics, physics, and technical analysis. During the war, he became deeply involved in counter-battery work and sound-ranging methods used to locate enemy guns. His wartime experience convinced him that artillery could no longer rely on instinct alone. Modern war demanded scientific precision.



General A.G.L. McNaughton



Barrage Map of Vimy Ridge, 1917

That mindset appears throughout the paper. McNaughton broke artillery fire down into measurable problems. He examined how shells dispersed in flight and why guns missed their targets. Some errors came from worn gun barrels. Others resulted from ammunition inconsistencies, inaccurate maps, or mistakes in laying the gun. Temperature affected propellant charges. Air pressure altered trajectories. Even the heating of a barrel during sustained firing could subtly reduce accuracy.

Wind posed the greatest problem of all. McNaughton identified wind variation as the single largest obstacle to long-range artillery accuracy. A shell fired from an 18-pounder remained airborne long enough to pass through multiple layers of moving air. Small shifts in wind speed or direction could push shells dangerously off target. At shorter ranges the effect remained manageable, but beyond roughly 4,500 yards wind became the dominant factor affecting accuracy. At extreme ranges, he concluded, uncertainty in meteorological conditions outweighed almost every other source of error combined.

This was not abstract theorizing. McNaughton filled the paper with calculations drawn from wartime firing data. He measured what artillerymen called “probable errors” and combined them mathematically to estimate the “danger space” behind a barrage — the zone in which friendly infantry risked being struck by their own artillery fire. The language can seem dry at first glance, but the stakes were anything but academic. Every calculation represented soldiers advancing behind real shellfire.

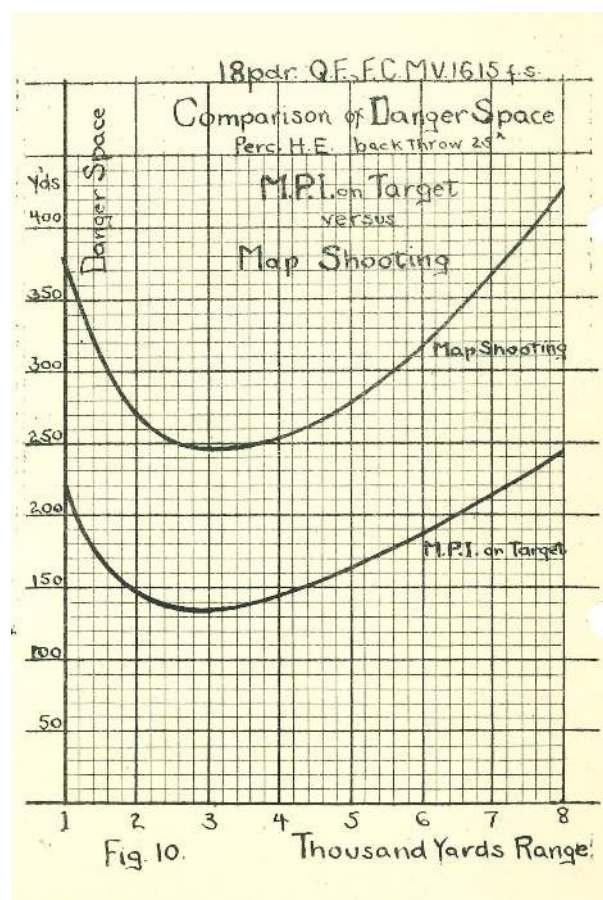
The paper also reveals how rapidly warfare changed during and after the First World War. Earlier generations of artillerymen usually fired at targets they could actually see. By 1918, artillery increasingly relied on “map shooting,” where guns attacked targets using calculations and coordinates alone. This allowed batteries to open fire without ranging shots, but small survey or weather errors could shift shellfire onto friendly troops.

McNaughton understood that solving these problems required better science as much as better weapons. One of the paper’s most forward-looking sections deals with ammunition design. Rather than advocating dramatically larger guns or far higher muzzle velocities, he argued that artillery performance could improve through more aerodynamic shells with better ballistic efficiency. Streamlined shells, improved surface finishes, and more reliable fuzes could increase effective range while preserving accuracy.

The paper also contains practical lessons drawn directly from wartime experience. McNaughton warned against crowding too many batteries onto the same section of a barrage because overlapping shellfire increased danger to friendly troops. He recommended pauses, or “dwells,” during barrages so infantry could maintain safe spacing behind the shells. He criticized simplistic rule-of-thumb firing methods and argued that artillery officers needed to understand the science behind their weapons rather than rely solely on tradition.

What makes the document compelling today is not simply its technical detail. The paper captures a moment when warfare itself was changing. The First World War forced armies to combine engineering, meteorology, mathematics, industrial production, communications, and battlefield tactics on an unprecedented scale.

In many ways, McNaughton’s paper reflected the wider belief among First World War artillery officers that scientific calculation could impose order on industrialized violence, even when battlefield conditions remained fundamentally unpredictable. More than a century later, the questions McNaughton examined — accuracy, coordination, technology, and the protection of soldiers under fire — remain central to artillery operations.



The graph shows how the danger area of an 18-pounder changes with distance, comparing predicted fire based on map coordinates with observed fire adjusted for greater accuracy.