

ANNEX C RCMP SERVICE PISTOL STATEMENT OF REQUIREMENT

Overview

The Royal Canadian Mounted Police (RCMP) requires a new service pistol to support operations. This document comprises the Statement of Requirement (SOR), detailing the characteristics and technical specifications in accordance with the operational requirements. The pistol must meet all Technical and Performance specifications as specified in the sections that follow. Accessories such as pistol mounted lights as well as slide mounted optics will also be specified. The accessories must be designed to function with the specific firearm as specified herein.

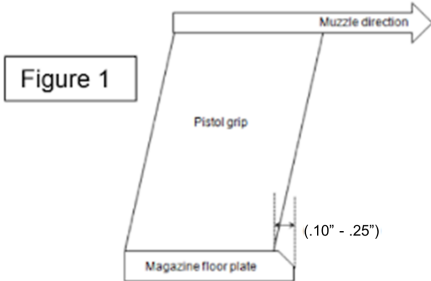
Capability #	Description
1.0 Bundle Specifications	
1.1	The pistol, RDS, LED weapon light, and general duty holster must operate as a system within a minimum temperature range of -40°C to +48°C.
1.2	The pistol with fixed ancillaries (RDS and LED weapon light), must fit in the general duty holster.
1.3	All components of the bundle must be capable of functioning at the same time without affecting performance.
1.4	The pistol with fixed ancillaries (RDS and LED weapon light), must fit in the plain clothes holster.
2.0 Service Pistol Specifications	
2.1.1	The pistol must be capable of firing 20,000 rounds without: <ul style="list-style-type: none">a. Needing to change the barrel, frame and slide;b. Incurring a class 4 event;c. Incurring more than 100 pts based on class 1, 2, and 3 events as per evaluation outlined in [RT 2.1.1]; andd. Needing to change any part due to failure outside the manufacturer's part

Capability #	Description
	replacement schedule.
2.1.2	The pistol's parts, components, magazines, and magazine parts (excluding barrel, frame, and slide) must not require replacement for a minimum of 5000 rounds.
2.1.3	The pistol must have a maximum length of 191 mm (7.52 inches) when measured from the barrel muzzle to the rear of the beavertail.
2.1.4	The pistol must have a maximum overall height of a maximum of 148 mm (5.83 inches) measured from the top of the slide to the bottom of the pistol grip with the magazine and RDS removed.
2.1.5	The pistol must have a maximum overall width of 36.1 mm (1.42 inches) measured from slide catch lever to slide catch lever.
2.1.6	The pistol barrel must have a minimum length of 99 mm (3.9 inches) and a maximum length of 108 mm (4.25 inches).
2.1.7	The pistol must not weigh more than a maximum of 822.14 grams (29 oz) when the magazine is empty, and no accessories are attached.
2.2 Ammunition Requirements	
2.2.1	The pistol must be capable of firing 9mm Luger +P ammunition.
2.2.2	The pistol must be capable of shooting a 15.25 cm (6 inches) grouping from 25 m (27.34 yards) away.
2.3 Pistol Lock Mechanism	
2.3.1	The pistol must be a mechanically locked, recoil-operated, striker-fired semi-automatic pistol.

Capability #	Description
2.3.2	The recoil spring guide must be manufactured of solid metal or polymer.
2.4 Pistol Finish	
2.4.1	The pistol must have a matte black finish on all visibly exposed surfaces when the pistol is fully assembled. Visibly exposed surface parts include grip frame housing, back straps, frame, slide and magazines.
2.4.2	The pistol's metal or metal-alloy parts must be made of either a corrosion-resistant material (i.e. stainless steel) or must have a corrosion-resistant surface finish (i.e. DLC).
2.4.3	The parts of the pistol that are normally handled by a user (grip, slide, trigger, and trigger guard) must not have any sharp edges.
2.4.4	The pistol's frame (grip module) must be manufactured of polymer.
2.4.5	The pistol's frame (grip module) must be manufactured to ensure that its shape cannot be distorted when gripped or when accessories are mounted.
2.5 Ergonomic Requirements	
2.5.1	The pistol's grip must accommodate a minimum of three distinct grip sizes (small, medium, and large).
2.5.2	When affixed, the grip options must not come loose or fall off.

Capability #	Description
2.5.3	The pistol's grip must not have finger grooves.
2.5.4	The pistol's grip frame housing and back strap must be textured.
2.5.5	The underside of the trigger guard and the underside of the beavertail must not be textured.
2.5.6	The pistol's front and rear sides (left and right) of the slide must have non-slip grasping grooves.
2.5.7	The pistol must have (an) ambidextrous slide catch lever(s) that enables a user to activate it using either hand.
2.5.8	Each pistol must be provided with one additional magazine base plate that has an attachment point for a ceremonial lanyard loop.
2.5.9	The full circumference edge at the entrance of the magazine well must be beveled or flared and be integrated into the pistol's frame (grip module) in order to aid in the insertion of a magazine.
2.6 Magazine Release	
2.6.1	The pistol's magazine release must be configurable for either a right- or left-handed user.

Capability #	Description
2.6.2	The pistol must have a push button that will release the magazine when a user presses it by making a lateral movement (from side to side) with their thumb.
2.6.3	The pistol's magazine release must prevent the magazine from being released while firing or handling the pistol.
2.7 Trigger	
2.7.1	The pistol's trigger pull weight must be a minimum of 2.27 kg (5.0 lbs.) up to a maximum of 3.18 kg (7.0 lbs.).
2.7.2	The pistol's trigger pull must positively reset when a user releases the trigger following a firing cycle.
2.7.3	The pistol's striker fired mechanism must have a minimum firing pin indent of 0.28 mm (0.011 inch).
2.8 Magazines	
2.8.1	Each pistol must be supplied with three (3) magazines.
2.8.2	The pistol's magazine must have a minimum capacity of seventeen (17) rounds.
2.8.3	The pistol's magazines must be manufactured of a material that is rust and corrosion resistant (i.e. plastic or stainless steel).

Capability #	Description
2.8.4	The pistol's magazine must have witness holes that aligns with each cartridge in the magazine starting at maximum cartridge number four (4).
2.8.5	<p>The pistol's magazine must have a baseplate that protrudes a minimum of 2.54 mm (0.10 inch) up to a maximum of 6.35 mm (0.25 inch) from the front of the pistol's grip.</p> <p>Figure 1</p> 
2.8.6	<p>When the pistol's magazine release button is pressed, the pistol's magazine must drop free from the pistol with the following criteria:</p> <ul style="list-style-type: none"> a) without user intervention; b) when the magazine is loaded and when it is empty; and c) when the slide is in either a forward or rear-locked position.
2.9 Rail System	
2.9	The pistol must have a Picatinny MIL-STD-1913 compatible rail system that is integrated into the pistol's frame dust cover.
2.10 Safety Features	

Capability #	Description
2.10.1	The pistol must have no external manual safety levers, grip safeties, and push-button safeties.
2.10.2	The pistol must enable a user to discharge a cartridge with the pistol's magazine removed.
2.10.3	The pistol must have an internal firing pin safety.
2.10.4	The pistol must have a mechanical safety to prevent a user from firing the pistol when not in battery (slide not fully forward and unlocked).
2.10.5	The pistol must have either a visual or tactile indicator that alerts a user that the pistol's chamber is loaded.
2.10.6	The pistol must have a safety feature that prevents the pistol from firing and firing pin from moving forward when dropped.
2.11 Iron Sights	
2.11.1	The pistol's front sight must be black and must have a yellow or orange coloured glow-in-the-dark photoluminescent outline surrounding a green tritium phosphor-filled glass lamp in the center (round dot).
2.11.2	The pistol with iron sights and the pistol with RDS must shoot to point of aim within a 5.08 cm (2 inches) radius at 25 m (27.34 yards).
2.11.3	The pistol's front sights must have a square front post with a width measuring between 3.05 mm (0.120 inch) and 3.68 mm (0.145 inch).

Capability #	Description
2.11.4	The pistol's rear sight must have each of the following: a) a square or u-shaped notch; b) a surface that will reduce glare to assist a user with front sight focus; and c) a notch width between 4.57 mm (0.180 inch) and 5.46 mm (0.215 inch).
2.11.5	The pistol's front sight tritium glass lamp must be protected with a mechanism that will prevent the removal of the coloured portion of the front sight when using cleaning or chemical products on the pistol.
2.11.6	The pistol's rear sight must be black.
2.11.7	The pistol's rear sight tritium vials must be green surrounded with a black outline.
2.11.8	The pistol's front and rear sights must be replaceable.
2.11.9	The pistol's rear sight must enable a user to adjust it for windage.
2.11.10	The pistol's rear iron sight dovetail must be milled to the pistol's slide.
2.11.11	The pistol's sights must have a fixed elevation.
2.12 Training Pistol Specifications	
2.12.1	The training pistol must be blue.
2.12.2	The training pistol must come with the submitted weapon light attached to it in the same manner as the submitted service pistol.

Capability #	Description
2.12.3	The training pistol with the submitted weapon light attached must be capable of firing RCMP marking cartridges.
2.13 Pistol Slide Specifications	
2.13.1	The slide must be manufactured of steel.
2.13.2	The slide must have a durable finish that is resistant to rust and salt water corrosion.
3.0 Red Dot Sight (RDS) Specifications	
3.1	The red dot sight (RDS) must be configured to directly mount to the pistol slide.
3.2	The RDS mounting surface must be machined to enable a user to view the pistol's front and rear iron sights when using the pistol.
3.3	The RDS must enable a user to view the pistol's iron sights through the RDS at a lower 1/3 co-witness.
3.4	The RDS mounting screw(s) must be made of steel.
3.5	The RDS must function and maintain zero (0) within a temperature range of -40°C to +48°C for a minimum of 4 hours.
3.6	The RDS housing must be made of hard anodized aluminum alloy with a non-reflective, matte black finish.

Capability #	Description
3.7	Including the battery, the RDS must weigh no more than 62 g (2.19 oz.).
3.8	The RDS magnification must be 1X.
3.9	The RDS must be parallax free within 25m (27.3 yds).
3.10	The RDS must have flush mounted elevation and windage click adjustments that will enable a user to adjust for elevation and windage at no coarser than 1 Minute of Angle (MOA) per click.
3.11	The RDS must have a minimum clear aperture of 15 mm (.59 inch) in both width and height.
3.12	The RDS exterior dimensions must be less than or equal to 55.88 mm (2.2 inch) long x 34.3 mm (1.35 inch) wide x 34.3 mm (1.35 inch) in height.
3.13	The RDS dot intensity switch must be positioned to adjust by the support hand.
3.14	The RDS dot intensity switch must be flush mounted and use a pliable or soft material that must function under operational temperature requirements as specified in MT 1.1.
3.15	The RDS must have a minimum of 8 dot intensity settings.
3.16	The RDS dot must be red and must be 3.5 (MOA) \pm .5 MOA in size.

Capability #	Description
3.17	The RDS optic lenses must have a coating that does not create a glare or reflection for the user.
3.18	When viewed from the rear of the optic, the RDS field of view must be clear and true to colour.
3.19	The RDS must use a coin cell Lithium battery with a minimum battery life of two (2) years when operating at the middle dot intensity setting (room temperature, constant on).
3.20	When set to high, the RDS dot intensity setting must enable a user to view the red dot in bright lighting conditions (i.e. outdoors in sunlight) at a distance of 6.4m (7 yards).
3.21	The user must be able to change the RDS battery without having to remove the RDS from the pistol slide.
3.22	The RDS must be waterproof to a rating of IPX7 as defined in ANSI/ NEMA FL 1-2009.
3.23	When affixed to the pistol with a loaded magazine and after being dropped from 1.3 meters, the RDS must: <ul style="list-style-type: none"> a) remain affixed to the pistol; b) maintain the ability to see the red dot; and c) maintain its 0.
3.24	The RDS must have one or more dot intensity settings for night vision.

Capability #	Description
4.0 LED Weapon Light Specification	
4.1	The LED weapon light must mount on a Picatinny MIL-STD-1913 pistol rail.
4.2 LED Weapon Light Dimensions	
4.2.1	The LED weapon light must have a maximum height of 32.2 mm (1.27 inches).
4.2.2	The LED weapon light must have a maximum width of 29.8 mm (1.18 inches).
4.2.3	The LED weapon light must have a maximum length of 65.5 mm (2.58 inches).
4.2.4	Including the battery, the LED weapon light must have a maximum weight of 68.1 g (2.4 oz.).
4.3	The LED weapon light must not protrude beyond the muzzle of the pistol.
4.4	The LED weapon light must have ambidextrous, rear activated operating and switching controls.
4.5	The LED weapon light's operating and switching controls must include each of the following settings: a) momentary on; and b) constant on.

Capability #	Description
4.6	The LED weapon light must have ambidextrous high and low switch configurations.
4.7	The LED weapon light must include a lockout feature that will prevent the LED weapon light from being accidentally activated.
4.8	The LED weapon light must be a light emitting diode (LED) light with a minimum output of 500 lumens and a minimum run time of 1.5 hours.
4.9	When affixed to the pistol with a loaded magazine and after being dropped from 1.3 meters (4.27 feet), the LED weapon light must maintain function of: a) momentary on; and b) constant on.
4.10	When affixed to the pistol with a loaded magazine and after being dropped from 1.3 meters, the LED weapon light glass must not break, become dislodged, or fall out.
4.11	The LED weapon light lens must be made of heat resistant glass.
4.12	The LED weapon light lens must be scratch resistant.
4.13	The LED weapon light must use a lithium 3 Volt CR123A battery.
4.14	The LED weapon light must have a hard anodized aluminum body.
4.15	The LED weapon light must have a minimum waterproof rating of IPX7 as defined in ANSI/ NEMA FL 1-2009.

Capability #	Description
4.16	The user must be able to replace the LED weapon light battery without having to remove the LED weapon light from the pistol.
5.0 Carrying Case	
5.1	The carrying case must have maximum external dimensions of 38.1 cm (15 inches) in width, 30.5 cm (12 inches) in height, and 15.24 cm (6 inches) in depth to hold the configured pistol with RDS and LED weapon light, and three magazines, along with pistol accessories such as grip components.
5.2	The carrying case must be equipped with a minimum of two (2) latching devices.
5.3	The carrying case must include two (2) separated securing eyelets with a minimum diameter of 8 mm (0.315 inch) and a maximum diameter of 9 mm (0.354 inch) that when locked with two (2) RCMP approved locks will secure the case from being pried open by hand.
5.4	The carrying case must include a foam insert that does not absorb water and is cut to secure and segregate the configured pistol with RDS and LED weapon light installed, grip components, and three magazines by a minimum of 1.91 cm (0.75 inch) on all sides.
5.5	The carrying case must have a carrying handle.
5.6	The carrying case must have a hinged lid that will hold open when empty or lay flat when opened.
5.7	The carrying case must be stackable.

Capability #	Description
5.8	The carrying case must be opaque so that the contents within the case are not visible when the case is closed.
5.9	The carrying case must not be embossed with any name, logo nor any markings which could indicate the content as a firearm.
5.10	The carrying case must be coloured black or in grey tones.
6.0 Pistol Holster - General Duty	
6.1	The holster must be available in a left- and right-handed configuration.
6.2	The holster must be able to secure the configured pistol with RDS and LED weapon light.
6.3	The pistol must remain in the holster and the holster must not sustain any damage when evaluated in accordance with RCMP-UEP SP 2-2022 Standard Practice for Evaluation of Pistol Holster Retention Mechanism(s).
6.4	The holster must have two (2) mechanical locking devices to keep the pistol in the holster, including: a) an automatic locking system, and b) a self-locking system.
6.5	The holster's mechanical locking devices must release the pistol from the holster when a user performs two (2) opposing, sequential motions.

Capability #	Description
6.6	The holster's automatic locking system must offer retention in all directions for both left and right-handed holsters.
6.7	The holster must enable the user to have full access to the grip of the pistol before drawing the pistol out.
6.8	The holster's retention and locking mechanisms must be positioned on the top forward portion of the holster to enable a user to draw the pistol with their dominant or nondominant hand.
6.9	The holster must have a locking mechanism that can be serviced by a user (i.e. cleaning and adjustments).
6.10	When the holster's retention features are deactivated, the holster must enable a user to draw the pistol parallel to the body.
6.11	The holster must be made of a durable, polymer material with a non-reflective, matte black surface finish.
6.12	The holster must protect the magazine release from inadvertently releasing the magazine while in the holster.
6.13	The holster must shroud the RDS and rear sight from view when in a locked and holstered position.
6.14	The holster's locking mechanism must feature a shroud to prevent an inadvertent release of the locking mechanism.

Capability #	Description
6.15	The holster must mount to an in-service duty belt that ranges from 5.0 cm (1.97 inch) to 5.7 cm (2.24 inches) in width and 3 mm (0.12 inch) to 5 mm (0.2 inch) thickness limiting unnecessary movement.
6.16	The holster must remain attached to the in-service nylon duty belt when force is applied in accordance with RCMP-UEP SP 3-2022 (Standard Practice for Evaluation of Pistol Holster Retention Mechanisms).
6.17	The pistol must remain in the holster when force is applied in accordance with RCMP-UEP SP 2-2022 (Standard Practice for Evaluation of Pistol Holster Retention Mechanisms).
6.18	The holster must not migrate while in use on the in-service duty belt.
6.19	The holster's exterior and interior metal parts and springs must feature corrosion-resistant material (i.e. stainless steel) or corrosion-resistant surface finish (i.e. electroplating).
6.20	The bottom of the holster must have (a) drain hole(s) or be open.
6.21	The holster must not scratch the surface finish of the pistol.
6.22	The RDS holster shroud must not impede holstering of the configured pistol.
6.23	The holster must mount to an MOLLE duty belt.
7.0 Pistol Holster - Plain Clothes	
7.1	The holster must be available in a left- and right-handed configuration.

Capability #	Description
7.2	The holster must be able to secure the configured pistol with RDS and LED weapon light installed.
7.3	The pistol must remain in the holster and the holster must not sustain any damage when evaluated in accordance with RCMP-UEP SP 2-2022 Standard Practice for Evaluation of Pistol Holster Retention Mechanism(s).
7.4	The holster must have one (1) mechanical automatic locking device to keep the pistol in the holster.
7.5	The holster's automatic locking device must offer retention in all directions for both left- and right-handed holsters.
7.6	The holster must enable the user to have full access to the grip of the pistol before drawing the pistol out.
7.7	The holster's retention/locking release mechanism must be positioned on the top forward portion of the holster to enable a user to draw the pistol with their dominant or non-dominant hand.
7.8	The holster must have a locking mechanism that can be serviced by a user (i.e. cleaning and adjustments).
7.9	When the holster's retention features are deactivated, the holster must enable a user to draw the pistol parallel to the body.
7.10	The holster must be made of a durable polymer material with a non-reflective, matte black surface finish.
7.11	The holster must protect the magazine release from inadvertently releasing the magazine while in the holster.

Capability #	Description
7.12	The holster must prevent unnecessary movement in accordance with RCMP-UEP SP 3-2022 (Standard Practice for Evaluation of Pistol Holster Belt Slide Attachments).
7.13	The holster must mount to a belt that ranges from 3.66 cm (1.44 inches) to 5.7 cm (2.24 inches) in width and 3 mm (0.12 inch) to 5 mm (0.2 inch) thickness, limiting unnecessary movement.
7.14	The holster must remain attached to the wearers belt (G.S. 1045-122 Belt, Waist, Leather, Black dated 2018-08-29) when force is applied in accordance with RCMP-UEP SP2-2022 (Standard Practice for Evaluation of Pistol Holster Retention Mechanisms).
7.15	The holster must not migrate while in use on the user's belt.
7.16	The holster's exterior and interior metal parts and springs must feature corrosion-resistant material (i.e. stainless steel) or corrosion-resistant surface finish (i.e. electroplating).
7.17	The bottom of the holster must have (a) drain hole(s) or be open.
7.18	The holster must not scratch the surface finish of the pistol.