

optimizing the use of such sights. That said, almost all new small arms continue to mount conventional iron sights as well as newer optical sights.

Two Notable New Military Small Arms

As mentioned previously, two newly developed small arms (together with their ammunition) appear to offer unique enhanced effectiveness and/or lethality. These are the H&K G11 (firing 4.73 x 33 mm caseless ammunition) and the FN P 90 (firing the small caliber 5.7 x 28 mm ammunition). These bullpup-design small arms have characteristics that warrant a more detailed examination of their capabilities.

H&K G 11.⁵⁰ This firearm and its caseless ammunition have together been under development for many years. Various prototypes have been tested and the product has been improved over time. In recent years it has undergone testing by the German and American armies (each examining slightly different variants, with the American one known as the G11/Advanced Combat Rifle or ACR). The design has now reached the point where it is deemed by H&K to be a viable operational weapon. Testing for both the gun and its ammunition was extremely rigorous. The G11 K2 version was tested by new German draftees and results indicated a 50 per cent improvement in hits over the older G3. In the US Army it was tested by both men and women and praised for its accuracy and ease of use (very little recoil and easy maintenance). Basic characteristics are outlined at Annex C. Most of this testing was carried out in 1989-1990. It did not come into service in Germany, in part due to the political collapse of the USSR and the Warsaw Pact and the elimination of the military threat they posed. As a result, the weapon and the ammunition has not entered into commercial or military production.

The most unique attribute of the G-11 is the caseless ammunition it is designed to fire – a 4.73 x 33 mm cartridge encased in a square sleeve of solid propellant and then wrapped in a special thin plastic coating. It is 50 per cent lighter than similar ammunition calibers.⁵¹ According to one source, “the terminal ballistics effects on soft targets are in line with international conventions. Even at extremely short ranges there is no fragmentation of the bullet

Canadian Army C-7 Rifle Optical Scopes.

⁵⁰ Most of the information on the Heckler and Koch small arms was provided courtesy Heckler and Koch Inc. 21480 Pacific Boulevard Sterling, Virginia. They were forthright in answering all questions. Other detail in this paragraph was drawn from various Jane's sources and Internet Sites, including <http://www.remtek.com/arms/hk/mil/g11.htm>

⁵¹ According to H&K for the same weight a soldier can carry 510 x (4.73 mm caseless) cartridges with no magazines required as the caseless ammo forms its own magazine, or 240 x (5.56 mm brass cartridges) with 7 spare magazines, or 100 x (7.62 mm brass cartridges) with 4 spare magazines.