within the target medium".<sup>52</sup> Caseless ammunition was developed to improve burst shot capability by eliminating the extraction process, thereby lessening the propensity of the weapon to climb during automatic fire. It is also intended to lighten combat loads, thus permitting more first line ammunition to be carried by soldiers. Finally, it also eliminates brass waste.

From an SALW control perspective, this weapon offers both positive and negative features. If the wound ballistics are well within international norms, the weapon's use over other designs could be considered a plus from a humanitarian perspective, although this may be offset by the increased likelihood of multiple hits. However, the G 11 would be unable to fire anything other than caseless ammunition and the corollary would be that small arms designed to fire standard brass cartridges could not fire caseless ammunition. Furthermore, no brass cartridges means no re-use possibilities for a home loader. The lack of a brass cartridge would also eliminate one opportunity for forensic analysis of evidence left at a crime scene. Over time, this ammunition could become the norm for many military weapons and as the science and economies of scale improve it could very well become much cheaper to produce than brass cartridges. Caseless ammunition as an SALW issue requires close examination. In principle, there would seem to be no reason for this ammunition to be made available for civilian use.<sup>53</sup> As the weapon and its ammunition are not yet in production, now is the time to review whether constraints on production and distribution are warranted and, if so, under what circumstances.<sup>54</sup> Even if Heckler and Koch, the producer of the weapon, and Dynamit Nobel, the producer of the ammunition, do not take this weapon into production, it may only be a matter of time before others develop a similar system. Considering that this is new technology, it is not remarkably expensive. According to H&K, the market price would probably be about US 30 cents per round of ammunition, and US \$800 to \$1200 for the weapon, including optical sights. Compared to a \$1300 price for the much older G 3, this is indeed inexpensive.<sup>55</sup>

<sup>&</sup>lt;sup>52</sup> See: http://www.remtek.com/arms/hk/mil/g11/caseless.html. According to H&K sources the ammunition wound ballistics are comparable to the 5.56 x 45 mm NATO round out to 600 meters.

<sup>&</sup>lt;sup>53</sup> According to RCMP Central Forensic Laboratory, Chief Scientist - Firearms, Murray Smith this is a critical consideration with regards to civilian use. However, thinking criminals could use revolvers which do not automatically eject casings or they could collect the brass to avoid forensic analysis possibilities. However, revolvers tend to be used less in crimes today than in the past.

<sup>&</sup>lt;sup>54</sup> A unique type of caseless ammunition has had limited commercial use – the Daisy VL .22 caseless bolt action. It should be noted that caseless ammunition is on the Wassenaar munitions control list. See <a href="http://jya.com/wa/waml.htm">http://jya.com/wa/waml.htm</a>.

<sup>&</sup>lt;sup>55</sup> Correspondence with Jim Schatz, Keckler & Koch Inc (7 Dec 1998).