

enhance identification to the extent that at least large orders would be marked to identify the purchaser and the country of manufacture as well. Thus, if Giat Industries in France produced 5 million rounds of 5.56 mm for country x, the cartridge base would provide that information in plain or code. If country x then diverted the ammunition illicitly it could be identified. Costs might be prohibitive for small producers and recycled casings would not be candidates for such markings particularly within the context of home based hand loading. It should be noted that cartridge box sizes run from 20 rounds to 64 rounds and higher and are generally marked with a batch or lot number and the contract number. It is quite easy for cartridges to be transferred to non-marked containers.

Identification taggants are microscopically color-coded particles that, if added to explosives or gun powder during their manufacturing, might facilitate tracing those products after a bombing or a shooting back to the manufacturer. Through the use of distribution records, tracing would continue through wholesaler, dealer, original purchaser (and subsequent ones if records were kept) or to the point of theft. There are also detection taggants that may facilitate detection of a product before it is used. Analysis of the merit of taggants is currently underway in the USA⁶² involving such issues as powder stability, crime scene contamination, record keeping, and cost effectiveness. It would also be worthwhile to investigate the merits of a taggant or identifier that would be susceptible to detection by sniffers or other devices to aid in customs and port authorities in detecting illicit shipments. Within the context of ammunition export and import, it could provide a means of identifying clandestine suppliers providing most major ammunition producers from most major producing countries used them. To ensure there was no cheating some form of verification inspection may be required at most plants.

A more novel marking procedure has been identified and tested with regards to marking individual bullets.⁶³ Tests were conducted by stamping the bullet base and then firing it. Apparently the markings remained intact. A laser technology company confirmed that computer-directed laser technology could be used to imprint the bullets as they went through an assembly line. Based on the analysis it was deemed that bullets could all have their own unique identification based on a number letter coding that allowed combinations of 52 to the sixth power. While the technology appears viable, it would appear that the required controls on ammunition in terms of record keeping at manufacture, wholesale, distributor, and purchaser level would severely limit its application, unless there was a wholesale acceptance of domestic and international regulation that exceeded that of even the most strict states on the matter at present. Along with that, significant commensurate resources to support it would be needed.

With regard to markings, one source has stated that several large countries involved in arms supplies conveniently ensured that the weapons produced for clandestine delivery contained no serial numbers. In one case, the weapons supplied were not ones normally manufactured by the

⁶² Canada has an explosive expert from the Explosives Regulatory Division participating in the meetings.

⁶³ See an article by Dr Norman Rubenstein at <http://members.aol.com/NRubenstei/gcontrol.htm>