

Groupe de recherche et d'information sur la paix et la sécurité

70 Rue de la Consolation, B-1030 Bruxelles Tél.: +32.2.241 84 20 - Fax: +32.2.245 19 33 Internet: www.grip.org - Courriel: admi@grip.org



# Scope for international minimum standards on tracing illicit SALW ammunition

Recommendations to the UN Open-Ended Working Group on Tracing Illicit SALW, 6th–17th June 2005

Holger Anders, GRIP's researcher

June the 6th, 2005

#### **Contents**

## **Executive Summary**

- 1.Background
- The current debate
- 2.Essential minimal standards
- 2.1 Adequate marking of ammunition
- Experiences in lot-marking ammunition
- Post-assembly laser marking Recommendations
- 2.2 Adequate marking of packaging units Recommendations
- 2.3 Accurate record-keeping Recommendations
- 2.4 Follow-up measures Recommendations

Annex: Brazilian legislation on ammunition marking and record-keeping

# **Executive Summary**

There is a close link between trafficking in illicit small arms and light weapons (SALW) and trafficking in related ammunition. Both commodities are predominantly diverted from the legal market and often are trafficked by the same actors and through the same routes. The availability of ammunition on illicit markets is also a key determinant for the ability of armed groups to sustain protracted armed conflict.

The ability of states to trace illicit ammunition can therefore make an important contribution to combating the illicit trade in SALW in all its aspects.

Existing international standards on tracing SALW ammunition do not allow for systematic tracking through its lines of supply. It can therefore rarely be identified at which point and through whose actions recovered illicit ammunition was diverted. The current negotiations at the United Nations of an international SALW tracing instrument offer an important opportunity to lay the foundations for adequate common standards on tracing illicit SALW ammunition.

This brief investigates the scope for such standards in the light of existing practices in the SALW ammunition industry. It begins by outlining the background and contents of the current debate on SALW ammunition tracing. The brief further considers the likely implications of international tracing standards on SALW ammunition for manufacturers. Its annex contains a summary of Brazil's legislation on ammunition tracing as an example of best practices on national level.

It is argued that, for the purposes of tracing illicit SALW ammunition, state parties to the negotiated international instrument on tracing illicit SALW should commit to:

#### Adequate marking of ammunition

There should be a legally binding obligation to mark ammunition at the point of first production with basic identifying information. This should be complemented with an obligation that ammunition for SALW manufactured to military specifications is marked with information identifying the manufacturer, year of production, and production lot number.

#### Adequate marking of packaging

There should be a legally binding obligation on manufacturers to mark smallest packaging units of SALW ammunition with information identifying the manufacturer of the ammunition, country of manufacture, the calibre and type of ammunition, its year of production, and production lot number. Manufacturers should ensure that marked ammunition is only packed in units that are marked with corresponding information.

# - Appropriate record-keeping

There should be a legally binding obligation on manufacturers of SALW ammunition for military and law enforcement markets to establish and maintain accurate records on initial transfers. Records should allow for the reliable identification of the first recipient of the units packed and marked by the manufacturer.

#### · Follow-up measures

State parties to the instrument should make a clear commitment to further steps to enhance their ability to identify and trace illicit SALW ammunition. Such steps should aim to assist states in the implementation of ammunition tracing standards. They should further aim to develop common understandings on measures to enhance traceability of ammunition recovered in the context of armed crime.

# 1. Background

On 13 August 2004, unidentified perpetrators attacked the Gatumba refugee camp in Burundi. They killed more than 150 unarmed civilians who had fled armed conflict in the Democratic Republic of the Congo. The day following, investigators recuperated from the scene spent cartridges that had been used in the attack. Markings on the cartridges identify their year of manufacture as well as their manufacturers in South-Eastern Europe and Asia.[1]. This indicates that they were lawfully manufactured though later diverted and eventually transferred to those, who committed the massacre.

The cartridges were used in a clear violation of international humanitarian law and qualify as illicit SALW ammunition. There should therefore be every interest in not only identifying the manufacturers of the cartridges, but to also identify the point at which they were diverted. Such tracing is currently largely impossible. The current negotiations on an international instrument to assist states in the timely and reliable tracing of illicit SALW are not the occasion to develop comprehensive standards on

tracing illicit ammunition. The negotiations do however provide a crucial opportunity for the adoption of standards to enhance the traceability of the initial transfer step of ammunition from manufacturers to the first recipient.

Allowing for tracing of this initial transfer step can make an important contribution to identifying and preventing flows of illicit SALW ammunition that sustain armed conflicts. This is because armed groups tend to require large quantities of ammunition to engage in active combat. The required bulk deliveries of illicit ammunition are often sourced from stockpiles of military and police forces[2]. Such ammunition bought and stockpiled by military and police forces is generally ordered directly from manufacturers. Enhancing the traceability of initial transfers from manufactures can therefore greatly strengthen the ability of states to identify and counter future diversions of SALW ammunition under their jurisdiction.

#### The current debate

Regrettably, an informed debate on the costs and benefits of international standards on tracing illicit SALW ammunition is hampered by misleading arguments. For example, it is held by some that practices such as re-loading firearms ammunition would significantly undermine the utility of any international tracing standards. However, re-loading of firearms ammunition is not an issue of relevance to tracing flows of illicit SALW ammunition to embargoed destinations and actors involved in armed conflict.

Further, it is held by some that marking of ammunition, their packaging units, and record-keeping on initial transfers would pose significant technical and logistical challenges. Also, it is held that marking and record-keeping on ammunition may require expensive redesigns of production equipment, increase production costs, and impose unjustifiable administrative burdens. In other words, it is suggested that the measures required to allow for tracing of initial SALW ammunition transfers would not be cost-efficient. These and similar arguments deserve qualification.

First, it is correct that strengthening the ability to trace illicit ammunition flows does not offer a quick-fix solution to the problem of the illicit trade in SALW ammunition in all its aspects. As with the combat of the illicit trade in SALW, policy responses to combating the illicit ammunition trade must be multifaceted and allow for addressing the problem from a comprehensive range of angles. Further efforts must therefore be made to develop adequate international standards on, among other, the control of domestic production and trade, stockpile security of SALW ammunition, destruction of surplus, and export standards and controls. At the same time, approaches to combating the illicit trade in SALW ammunition that were to exclude relevant standards on tracing illicit ammunition would be inconsistent and seriously flawed. Thus, efforts to combat illicit ammunition trafficking through strengthening stockpile security and other aspects of ammunition control will remain limited in their effectiveness if not complemented with a capacity to trace illicit ammunition.

Second, standards allowing for the tracing of initial ammunition transfers would make a significant contribution to limiting the availability on illicit markets of large quantities of untraceable ammunition. Further, adequate standards would allow in many cases for basic traceability of illicit SALW ammunition that is intercepted, seized, or found in the context of conflict and post-conflict situations. Thus, illicit ammunition recovered in the context of armed conflict is often still in the manufacturer's packaging[3]. Also, adequate standards would significantly strengthen mechanisms to alert states to previously unnoticed diversions from stockpiles held by manufacturers and recipients. This is important because diversions from stockpiles often go undetected[4]. In addition, states requesting that ammunition authorised for export is for sole use of the recipient may be alerted to the fact that a recipient failed to adhere to end-use obligations, or to adequately protect against diversions from national stockpiles.

Third, arguments regarding the allegedly high costs of measures required to allow for tracing initial ammunition transfers fail to appreciate that the relevant standards would promote industry-wide adherence to already established practices. This is especially the case in relation to marking of packaging units for ammunition, and record-keeping requirements of manufacturers on initial transfers. Even adequate marking of individual cartridges with traceable information is already undertaken by several large manufacturers for tens of millions of rounds of small calibre ammunition a year. The

experiences of these manufacturers clearly demonstrate that this does not require new machinery or increase production costs. As argued in the following section, adequate standards on ammunition tracing would therefore not unduly interfere with lawful manufacture of SALW ammunition.

# 2. Essential minimal standards on tracing illicit SALW ammunition

# 2.1 Adequate marking of ammunition

It is global industry practice to individually mark SALW ammunition with basic identifying information. Ammunition for military and law enforcement markets usually contains a code identifying the manufacturer and additional elements such as calibre type and/or year of production. The exact contents of markings are usually specified by the client for the ammunition. In contrast, ammunition for civilian markets is generally produced in response to market demands, but not individual orders. For civilian ammunition, it is therefore generally the manufacturer, who decides on the markings of rounds.

Markings on small calibre ammunition are traditionally applied as an integral step of the production of the cartridge case. That is, machines for the production of small calibre ammunition are provided by the main global suppliers of this equipment with the required stamping tools already built into the case production process. The cases are marked by a piston mechanically stamping the case head when, for example, indented to form the primer pocket.

Certain clients require that ammunition produced for them is marked not only with basic identifying, but also with traceable information. Such traceable information consists of, at a minimum, a code identifying the manufacturer, the year of production, and the production lot number. There will sometimes also be additional elements, such as calibre size or a code identifying the recipient such as a military deport, army battalion, or federal or regional police force. Lot-marked ammunition is produced for, among other, military and police forces in Brazil, Colombia, Germany, and Switzerland[5].

There are no technical constraints to marking even small size calibre ammunition with lot numbers and additional information. This is demonstrated by the production for some clients of comprehensively marked 5.56x45mm rounds for assault rifles and machine guns. These marks, which are visible to the naked eye, are marked with an identification of the calibre, as well as a ten digit code. The code is made up of six numbers and four letters. It identifies the manufacturer, the year and month of production, and a unique lot number(6).

#### Experiences in lot-marking ammunition

Producing lot-marked cartridges through the traditional stamping at the stage of case production requires the assignment of a lot number to a batch of fully assembled rounds even before production of cartridge cases begins. Further, after a production run, the production and assembly lines for cartridges and their cases need to be cleared. These steps are necessary to avoid possible mixing of cartridge cases in production and assembly lines with marks of different lot numbers. It is sometimes held by industry lobbyists that the implementation of these steps, and especially the interruption of production lines between different lots of components and fully assembled cartridges, would be highly problematic for SALW ammunition manufacturers. This assertion is, in relation to ammunition for military and law enforcement markets, not evident.

As mentioned, it is standard industry practice among modern ammunition producers for military and law enforcement markets to produce in response to specific orders rather than to market demand. In other words, manufacturers will interrupt case production and cartridge assembly lines after the completion of a lot. This is done so as to adjust manufacture to a new client's specifications. Undertaking the necessary steps to avoid mixing of cartridge cases during production with different lot marks of ammunition for military and law enforcement markets does therefore not automatically imply an interruption of production processes that would otherwise not occur[7].

Further, as testified by the experience of manufacturers who lot-mark cartridges, adopting production procedures for adequately marked cartridge cases does not involve significant costs. Standard lot sizes of 500,000 rounds for small calibre ammunition are lot-marked without increasing the price of

rounds. Increased costs per ordered round may arise though when clients request quantities of, for example, 200,000 rounds or less of lot-marked small calibre ammunition. Extra costs borne by the client are incurred here because it is economically unprofitable to prepare, operate, and afterwards clear production lines for small quantities.

## Post-assembly laser marking

It has generally been assumed that marking of cartridges is only possible at the stage of case production. This is because of the risk of explosion in relation to stamping of loaded cartridges. However, the marking method developed by the Brazilian manufacturer Companhia Brasileira de Cartuchos (CBC) reveals that there are other possibly ways for lot-marking ammunition. In response to the entry into force on 1 January 2005 of new Brazilian legislation (see Annex), CBC now marks individual rounds of certain specified calibres with a unique lot number as well as a code to identify the client buying the rounds. Rather than lot-marking cartridges during case production though, lot numbers are applied after assembly and final quality check for cartridges.

More specifically, a computer-operated laser marks the individual rounds in an integrated step of their automated packaging with a five digit code in the cartridge's groove. The system neither poses explosion risks, nor slows down packaging. The code identifies both lot number and the sole recipient of this ammunition. The coding allows for the clear identification in the electronic register of CBC of the legal entity receiving the lots and sub-lots such as a military depot.

This laser-based system for lot-marking cartridges after assembly has important ramifications. CBC assembles cartridges with cases that are not lot-marked, thereby avoiding possible mixing of lot-marked cases and assembled cartridges during case production and cartridge assembly. Further, CBC is able to individually lot-mark every batch of 10,000 rounds with unique codes without increasing costs[8]. As indicated by other manufacturers who lot-mark ammunition, individually lot marking such small quantities through stamping of cases during cartridge case production would be problematic.

#### Recommendations

Establishing an international standard on adequate marking of ammunition for SALW would make a significant change to the ability of states to identify and trace illicit ammunition flows. It is therefore desirable to adopt an international standard obliging manufacturers to mark, at the point of first manufacture, ammunition for both small arms and light weapons with basic identifying information.

Regarding tracing of conflict-related SALW ammunition, a complementary standard on also lot-marking certain ammunition is desirable. This ammunition should include all ammunition for SALW manufactured to military specifications. Specifically, manufacturers of such ammunition should be obliged to mark such ammunition with information identifying the manufacturer, year of production, and production lot number. The marking of additional information such as calibre type or code identifying the client should be encouraged wherever possible.

States should also adopt national regulations obliging their military, security and police forces to only order and use lot-marked ammunition. Such a national standard following existing good practices would significantly strengthen the mechanisms available to states to be alerted to diversions of SALW ammunition previously under their control.

#### 2.2 Adequate marking of packaging units

Manufacturers of SALW ammunition already mark packaging units with information on the manufacturer and other identifying information on the ammunition. Packaging of ammunition for military and law enforcement markets is typically marked with information on the manufacture, type, and quantity of the packed ammunition as well as, for often logistical reasons, lot number and year of production. This information is, for example, practice under the standardisation agreements for packaging of military ammunition in states member to the North Atlantic Treaty Organisation. Additional identifying information may, as requested by the client, contain a code identifying the recipient military depot or battalion.

To illustrate, small size calibre ammunition for military and law enforcement will often be packed in a first unit, usually cardboard boxes. For calibres such as 5,56mm, 7,62mm and 9mm the cardboard boxes contain, depending on calibre size, between 20 and 50 rounds. Manufacturers already marking these smallest packaging units do so by automated printing or by applying a sticker or ribbon. The boxes are then grouped in portable wooden cases or metallic containers that can hold between 1,000 to 2,500 rounds[9].

The reusable cases and containers are, as a matter of industry practice, marked by impregnation or stencilling. When empty containers are refilled, previous markings such as the lot number are removed and replaced with the required information. The containers will then often be sealed and stacked as bulk packaging for storage or transport on pallets that may carry 100,000 rounds or more.

Experiences by manufacturers already adequately marking packaging units suggest that the application of such marks does not constrain current practice in lawful manufacture of SALW ammunition.

#### Recommendations

An international standard on marking packaging units of SALW ammunition with traceable information would strongly support the ability of states to identify the manufacturer of recovered illicit ammunition. This is especially the case if no international standard on adequately marking SALW ammunition should be adopted. Adequate marking of packaging units would further counter the easy availability on illicit markets of untraceable ammunition.

The minimum standard on tracing illicit SALW ammunition should be an obligation on manufacturers to adequately mark the smallest packaging units of ammunition with traceable information. This information should identify the manufacturer and country of manufacture, calibre and type of ammunition, its year of production, and production lot number.

The application of further identifying information such as recipient should be encouraged wherever possible. Manufacturers should further ensure that markings on packaging units correspond to markings of the packed ammunition.

# 2.3 Accurate record-keeping

It is standard practice among manufacturers for SALW ammunition to keep records on their production and transfers. These records are held for reasons of internal monitoring and, where required, to comply with domestic legislation. At a minimum, these records will be paper based and provide information on the type and quantity of produced ammunition and, in cases of transfers, the recipient.

At the same time, records do not always contain information necessary for tracing such as a lot number uniquely identifying the packed and transferred ammunition. Even where traceable information is recorded, loopholes in traceability may occur where identically marked ammunition or packaging units are sent to multiple recipients. This is often the case with ammunition produced for civilian markets. Reliable identification of the first recipient of recovered illicit ammunition is here, in absence of further marks on ammunition and/or packaging identifying the end user, not possible.[10]

Nevertheless, modern manufacturers of ammunition for military and law enforcement markets predominantly already maintain records that allow for timely and reliable identification of the initial recipient of transferred ammunition. In addition, most of these manufacturers keep records in electronic format so as to facilitate their internal monitoring of production and transfers. The experiences of manufacturers already keeping such records suggest that adjusting existing record-keeping systems and maintaining these to record traceable information does not involve significant challenges or costs.[11]

Further, those manufacturers who would have to change practices are largely manufacturers whose level of accountability falls significantly short of widely accepted minimal standards in industry. In addition, states have committed under the 2001 UN Programme of Action on SALW to "ensure that comprehensive and accurate records are kept ... on the manufacture, holding and transfer of small

arms and light weapons under their jurisdiction."[12] Following the definition given by SALW in the 1997 report of the UN Group of Governmental Experts on SALW, this commitment to record-keeping covers SALW ammunition.[13]

#### Recommendations

International standards on marking of SALW ammunition and their packaging units can only strengthen the ability of states to trace the initial transfer of ammunition from manufacturers to first recipients if adequate records are held by manufacturers. Records should identify the markings applied to ammunition and their packaging, quantity and date of production and sale, and the initial recipient. States should consider in this context to make records and stockpiles held by manufacturers subject to verification and physical inspections by competent national authorities.

#### 2.4 Follow-up measures

With a view to assist states in tracing flows of illicit SALW ammunition, it is desirable that manufacturers of SALW ammunition are obliged to adequately mark ammunition and their packaging, as well as to keep records allowing for the reliable identification of the ammunition's initial recipient. These measures, and especially the lot marking of ammunition for military and law enforcement clients, would significantly strengthen the ability of states to control the first steps legally produced ammunition during the first steps of its life cycle.

The adoption of such minimal standards would still leave considerable scope though for the future development of more comprehensive standards on ammunition tracing. State parties to the tracing instrument should therefore make a commitment to the creation of a UN committee of experts to consider the feasibility of further measures to trace illicit SALW ammunition. One of the tasks of this group should be the development of common understandings and guidelines to assist states in the implementation of the instrument's standards on ammunition tracing.

The group should consider, among other, which calibre types should be covered by a standard to mark ammunition with traceable information. Thus, several categories of small calibre ammunition are equally employed in SALW made to military specifications, and firearms for hunting and sport shooting.[14] A more ambitious definition for SALW ammunition to be marked with traceable lot numbers could therefore cover all calibres useable in SALW made to military specifications. In addition, it is not clear why explosives such as hand grenades should be excluded from the scope of an international instrument on tracing illicit SALW and ammunition.

Further, it is desirable that state parties to the international tracing instrument consider the development of common understandings on best practice on record-keeping allowing for tracing of ammunition acquired by military, security and police forces. While such initial recipients may hold records on quantities and destinations of transferred ammunition, records rarely contain information on lot numbers and other information necessary for tracing a particular packaging unit. The development of best practices in this regard would therefore strengthen the ability of states to trace not only the initial transfer, but also further steps in the legal transfer chain of SALW ammunition recovered in the context of armed conflict.

Also, state parties to the instrument should consider further measures to strengthen their ability to trace illicit firearms ammunition recovered in the context of armed crime. Thus, despite evident overlaps, measures to enhance traceability of illicit SALW ammunition related to armed conflict might not be the most suitable ones for enhancing traceability of illicit firearms ammunition recovered in the context of armed crime. As a first step, state parties should therefore seek to identify appropriate measures for tracing diversions of ammunition from civilian markets and develop common understandings on the cost-effectiveness of these measures.

#### Recommendations

In order to fully exploit the contribution of international standards on tracing illicit SALW ammunition to combating illicit SALW ammunition flows, state parties to the tracing instrument should, as a matter of priority, make a clear commitment to consider further steps to enhance their ability to identify and trace, in a timely and reliable manner, illicit SALW ammunition. The ultimate aim of any follow-up

should be the development of standards that allow for systematic tracking of SALW ammunition and the identification of those responsible for ammunition diversion and misuse. States should also include information on their national practices regarding marking and record-keeping systems for SALW ammunition in regular reports on the implementation of the SALW tracing instrument.

United Nations member states should also consider further steps to combat the illicit trade in SALW ammunition in all its aspects. This should include informal consultations as well as debates at the 2005 UN Biennial Meeting of States and the 2006 Conference to review the implementation of the UN Programme of Action on SALW. The aim should be the development of common understandings on appropriate regional and international standards on, among other, ammunition stockpile security and management measures, destruction of surplus, and strengthened transfer criteria and controls.

# ANNEX: Brazilian legislation on ammunition marking and record-keeping

Following concern about the proliferation and misuse of untraceable small size calibre ammunition in Brazil, new legislation adopted in December 2003[15] laid the foundation for a well developed national regime on ammunition tracing. Law N° 10,826/03 stipulates that all ammunition sold to bodies so authorised shall contain an "identification of the production lot number and the acquirer on the base of the cartridge case" (art.23-§2). Bodies authorised to purchase ammunition include the armed forces, police, private security companies, and sport shooting entities (art.6). The law further stipulates that "[a]ll ammunition commercialised in the Country should be placed in packages containing a bar code engraved on the box, in order to enable the identification of the manufacturer and purchaser" (art.23-§1).

These provisions were specified in December 2004 in the *Decree Regulating the Marking of Ammunition Packaging and Cartridges*.[16] The decree covers eleven calibre categories for small arms including revolvers, automatic and semi-automatic pistols, carbines, assault and sniper rifles, and heavy and light machine guns (art.4).[17] It is further established that "commercial batches destined for sale to legal entities" are limited to 10,000 cartridges (art.2). Ammunition of controlled calibre sizes and produced for law enforcement and armed forces institutions must "contain an engraving on the base of the casing guaranteeing the unequivocal identification of the batch from which the ammunition originated, as well as the buyer" (art.4).

Further, "[a]II ammunition traded on national territory by producers or importers must be contained in packaging marked with a bar-code system ... [that identifies] the producer, commercial buyer, product and production batch number". The bar-code "must be engraved (or printed) on the box (container) in which the ammunition is delivered so as to permit its unequivocal identification" (art.3). Transfers within the national territory are only permissible if both ammunition and its packaging is marked in accordance with this decree (art.5). Also, trade in ammunition in inadequately marked packaging units is prohibited "even if traded separately from the rest of the batch from which it originated" (art.9).

In addition, the decree stipulates that "[p]roducers and importers must establish and maintain up-to-date databases permitting" the tracing of the information including the buyer's name, type and description of ammunition, production batch number and date and number of the transfer authorisation (art.6). Records must be kept for a period of ten years before being definitely transferred to the competent national authorities for indefinite electronic storage (art.6, §2 and 3). Producers and importers must also provide "immediate read-only access to their databases" to the competent national authorities (art.6, §1 and 4).

As a further counter-proliferation measure, the decree stipulates that imported "ammunition packaging and cartridges must be marked by the producer or exporter" and, once cleared by customs, imports must be electronically notified by the importer to the competent authorities. Such notification must contain information including the numbers of the International Transport Certificate and import license; the bar-code engraved or printed on the box containing the ammunition; the code used by the producer to mark the base of the cartridge casings; batch and year of manufacture of the ammunition; and name of producer (art.7).

This report was written by Holger Anders of GRIP and IANSA as part of the programme 'Observatory on global weapons production and transfers' by the Walloon Region, Belgium. The author would like to thank the contacted governmental officials and representatives of companies who assisted him in this research. The companies are located in Brazil, France, Belgium, Germany, Austria and the Czech Republic. Four of them regularly supply clients with lot-marked ammunition. Two of them supply only ammunition which is not lot-marked. Three further companies are among the world leaders in supplying machinery for the production, and marking, of SALW ammunition for military and law enforcement markets. The author would also like to thank Pablo Dreyfus, Ilhan Berkol, and others, who gave comments on a draft of this report. The here presented opinions are those of the author alone and do not necessarily reflect the official position of the Walloon Region or the contacted companies. Any remaining errors are his.

- [1] See Control Arms (2005) *Tracking Lethal Tools*. Report by the Control Arms Campaign. London: Control Arms Amnesty International, IANSA, Oxfam, p.6f.
- [2] See for example United Nations (1999) *Report of the Group of Governmental Experts on Small Arms*. UN Document A/54/258. New York: UN, 19 August, p.8, para.18; and Biting the Bullet (2000) *Stockpile Security and Reducing Surplus Weapons*. Briefing no° 3. London: BtB BASIC, International Alert, Saferworld.
- [3] Interview by the author with UN investigator on arms embargo violations, Belgium, April 2005.
- [4] See Biting the Bullet (2000), fn.2.
- [5] Information kindly provided by governmental officials, ammunition producers and non-governmental researchers in Brazil, Germany, and Switzerland, April 2005.
- [6] Information kindly provided by manufacturer of small calibre ammunition for the German Armed Forces, April 2005. An example for such a code would be: XXX 05 A 0001. XXX stands for the manufacturer, 05 for the year of production, A for the month of production (e.g. January), and 0001 for the lot number.
- [7] Information kindly provided by manufacturers of lot-marked ammunition and ammunition production lines in Belgium, Brazil, France, Germany, and Austria, April 2005.
- [8] Information kindly provided by CBC, Brazil, April 2005.
- [9] Alternatively, individual rounds such as 12.7mm for heavy machine guns may be linked through clips and put directly into cases or containers. The smallest packaging unit here are then the cases or containers, which may contain up to 100 rounds.
- [10] In order to avoid loopholes in the traceability of ordered ammunition, some clients require manufacturers to not deliver identically lot-marked ammunition and packaging to any other recipients. The German Armed Forces, for example, require of manufacturers that these destroy identically lot-marked ammunition produced in excess of the ordered quantity.
- [11] Information kindly provided by ammunition manufacturers in Belgium, Brazil, the Czech Republic, Germany, and Austria, April 2005.
- [12] United Nations (2001) Programme of Action to Prevent, Combat and Eradicate the Illicit Trade in Small Arms and Light Weapons in All Its Aspects. UN Document A/CONF.192/15. New York: UN, July, section II, para.9.
- [13] United Nations (1997) Report of the Panel of Governmental Experts on Small Arms, (A/52/298, 27 August 1997), para.26.

- [14] The difference between such ammunition is whether a full metal jacket covers the bullet. Bullets with full metal jackets are the international standard for military forces. Bullets without full metal jacket are, because of their different behaviour upon impact, used in hunting.
- [15] Statute of Disarmament (Law N° 10,826/03), December 2003. Unofficial translation.
- [16] Decree Regulating the Marking of Ammunition Packaging and Cartridges (Decree n.16 D LOG), December 2004. Unofficial translation.
- [17] The categories are the calibres .380, .38, .357, 9mm, .40, .45, 5,56mm, .30, 7,62mm and .50, and 12 gauge.



## Groupe de recherche et d'information sur la paix et la sécurité

70 Rue de la Consolation, B-1030 Bruxelles Tél.: +32.2.241 84 20 - Fax: +32.2.245 19 33 Internet: www.grip.org - Courriel: admi@grip.org

Copyright © GRIP - Bruxelles/Brussels, 2003 - Webmaster

La reproduction des informations contenues sur ce site est autorisée, sauf à des fins commerciales, moyennant mention de la source et du nom de l'auteur.

Reproduction of information from this site is authorised, except for commercial purposes, provided the source and the name of the author are acknowledged.