Gerd Hagmeyer-Gaverus
SIPRI
Signalistgatan 9
S-169 70 Solna
Sweden
Phone: +46-8-6559768
E-mail: ghg@sipri.se

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Record-keeping

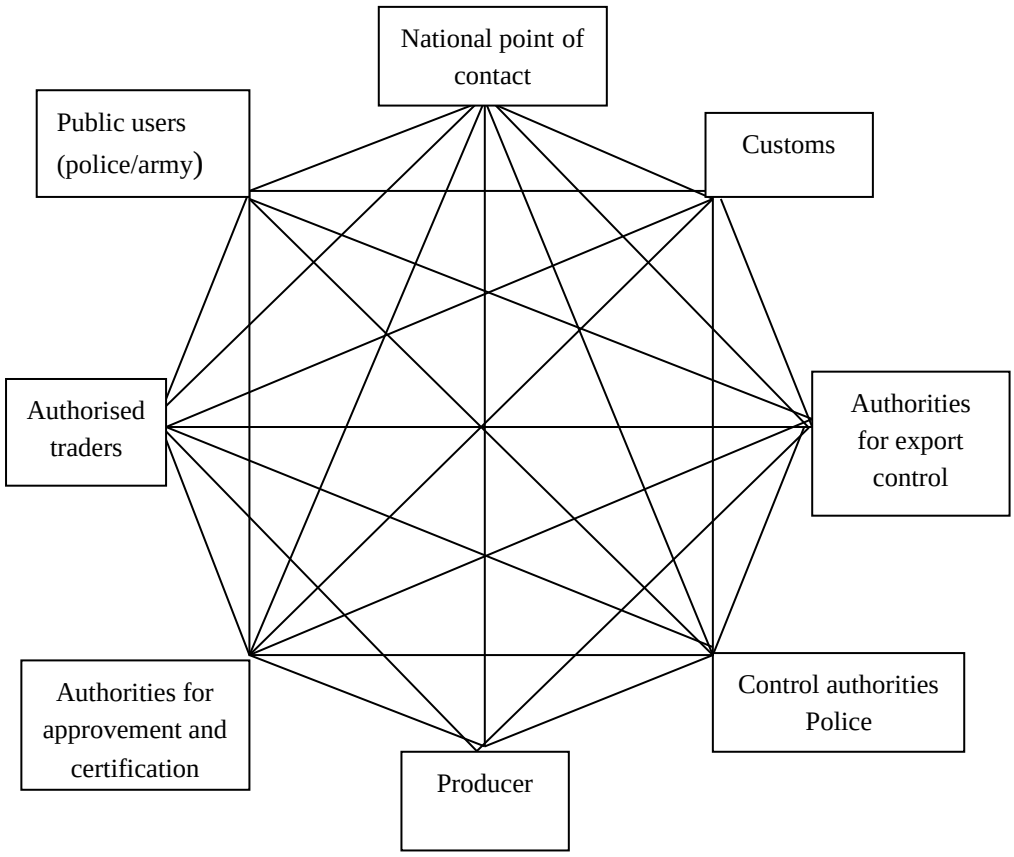
Comments and additional viewpoints
(Franco-Swiss Workshop on Tracability of Small Arms and Light Weapons: Tracing, Marking and Record Keeping, Geneva, 12 – 13 March 2001)

The paper by Mr Bosquillon de Jenlis describes a comprehensive process of small arms registration—its instruments, the actors and the stages in the lifetime of small arms when registration action is required. There may be variations in the administrative routines of countries but the basic elements are the same. Even if certain aspects of the small arms registration problem are not specifically dealt with in the paper, such as the registration of components, ammunition and hand-held grenade or missile launchers, it still has general validity because the record-keeping of these items is quite similar to those of other small arms and therefore falls under the same general rules and processes. I would against the background of the paper like to make some few additional points that may be quite technical in nature but are important for the efficiency of national, regional and international small arms registration systems. The question I try to answer is: How can a national or supranational registration system be organized to meet the requirements of retrievability; up-to-date record-keeping, comprehensiveness, accuracy and, not least, the elimination of overlapping activities in the process of registration.

To answer this question we need to look at a registration system in a schematic way. First we have the actors—private and non-private—who would feed information into the system, and then we have the pieces of information on the comprehensive record of the lifetime of a small weapon. The information processed on a weapon differs from actor to actor and is oriented according to the predefined tasks of the actor. The customs authorities, for example, deal with information on the origin and destination of the weapon, and the producer with information about the characteristics and features of the weapons as well as information on the shipping destination. Information processing might be electronically based or done by the traditional method of filling in forms. Although each actor adds specific information, some information, such as the model and producer, might be added repeatedly in each of the processes, information which exceeds the marking information. This duplicate

information is redundant and can be easily taken care of in a shared electronic information pool design, thus making the process more efficient.
In order to constitute such a shared electronic information pool, the actors need to process their data in individual electronic database systems which then have to be interconnected to enable the exchange of information on a real-time basis. In this way some basic information could always be added to an electronic input form once the marker is entered.

If we look at the registration process in a schematic form and add the concept of a shared information pool, we arrive at the following model:



The model could apply to any national, regional or international record-keeping system. The entities of the model are the actors and the information flow lines between the individual databases. In practical terms it would be a network of interconnected computer systems.

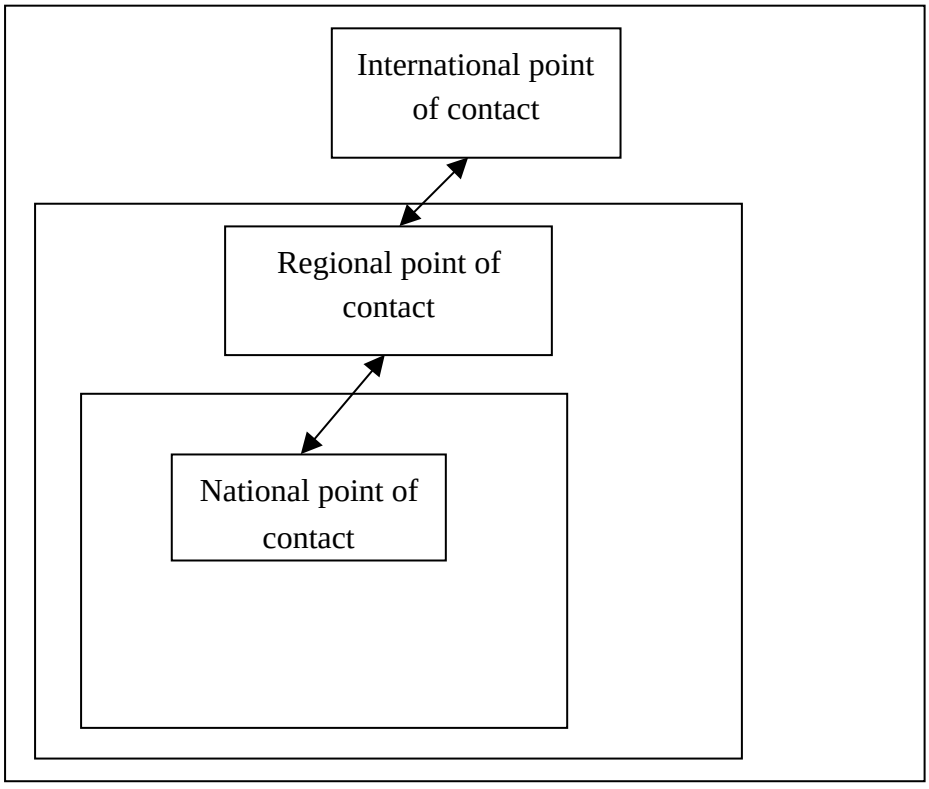
The information exchange would take place under certain information-filtering rules. If necessary and required by, for example, national law, only certain parts of the information would be exchanged between the different actors. The National Point of Contact authority, however, would have complete access, thereby acting as the guardian of the comprehensive record.

The comprehensive record is the sum of all the information created or recorded by all the actors at all times, thus giving a complete picture of the life of a weapon from production to destruction, assuming there is a standardized marking system available. The comprehensive record would reflect any change of status during the lifetime of a weapon, whether a change of ownership, a transfer to different locations or a change of usage.
Mathematically it could be expressed as:

$$\sum_{1}^{n} x = x_1 + x_2 + x_3 + x_4 + .. x_n$$

where *x* is the piece of information from the individual actors, such as production data from the producer or transfer data from the customs authorities, or sales data from the commercial traders.

Beyond the national level, information exchange takes place between the national, regional and international points of contacts to the extent agreed. The means of information exchange can be automatic—via interconnected databases—or manual—through a process of filing and returning individual requests for information. The automated process, however, would provide greater efficiency



Coming back to the question:
How can a registration system can be organized to meet the requirements of retrievability, up-to-date record-keeping, comprehensiveness, accuracy and, not least, the elimination of overlapping activities in the process of registration?,
We can readily see that the proposed design enables comprehensive record-keeping and eliminates overlapping activities. Electronic databases are by definition retrievable systems, thus ensuring retrievability. By sustaining the system as a real-time system, up-to-date record-keeping is also guaranteed. New information is immediately available throughout the system as soon as it has been entered. Accuracy is ensured by at least two factors. In feeding into the system, certain control mechanisms ensure that data are entered correctly in the database. Cross-references with other data are in place to check the coherence of the entered data with other databases. Pieces of information that are required in the entering process cannot be left out because the system forces an entry if the field is left blank.

The technology necessary to support such a system is today already standard. Database connectivity is established either by connecting the databases directly to the Internet or by creating so-called Internet-based virtual networks. In either case a certain level of security needs to be put in place, regarding both access and information exchange over the network. Advanced encryption technology offers several solutions in that regard. Most existing systems could easily and at a low cost be adapted to such a set-up.

Adding information to the system needs to be based on user-friendliness and simplicity. In addition to traditional terminal input, other methods of information collection should be applied, such as the provision of hand-held terminals for customs personnel and digital photography in cases where identification of, for example, unmarked weapons is impossible at the location where the weapons are processed.

In summary, today’s information technology provides the means for an effective small arms record-keeping system. It not only provides the authorities with a comprehensive record of the small arms but also supports control agencies like the police or customs through real-time retrievabilty with all the information they need in order to fulfil their tasks efficiently. Again, confidentiality can still be guaranteed by an elaborate system of access controls.
Comprehensive record-keeping through a network of databases would allow rapid access to information on loopholes, the instances where weapons disappear, thus allowing fast action to be taken, for example, cutting the responsible actor out of the change of transfer or ownership

The general concept of interconnected databases is easily transferable to other countries in the international framework of the control of the flow of small arms.

Software developed for the system may be given to those countries which do not have the means to develop it, such as those in West Africa or any other region where the illicit transfer of small arms is most problematic.