

Workshops and Factories: PRODUCTS AND PRODUCERS

This chapter provides an annual update on global small arms production. It focuses especially on technology issues, reviewing current and future developments. The low-end of global production is illustrated by a focus on illicit ‘craft’, or ‘home-made’ gun making in various parts of the world. The consolidation of high-end global mass production is examined through updates on two of the world’s major producers—the Russian Federation and the US—and a survey of small arms production in Central and Eastern Europe (CEE).

The global small arms industry is becoming simultaneously more concentrated and more dispersed. Consolidation is accelerating, reflecting broader trends in the larger defence industry. At the same time, the global small arms market appears to be fragmenting as more and more companies develop the capacity to produce small arms. The result is the creation of an increasingly chaotic global market, with more suppliers, and more products, chasing fewer buyers. Currently, 1,134 companies in at least 98 countries are involved in some aspect of small arms production, an increase over previous estimates. At least 30 countries are regarded as significant producers, with the United States and the Russian Federation dominating the global market. Between them, these two countries account for more than 70% of total worldwide production of civilian firearms.

Small arms technology has not changed significantly in the last 50 years. The stagnation is due not to a lack of effort, but because the industry has been stuck on a *technological plateau* for about 50 years. In the absence of unforeseen innovation, small arms technology is likely to remain on this plateau for years to come. Although the civilian market is the largest part of the global small arms business, accounting for more than 80 per cent of annual production, it is innovation in the military market that generally defines the cutting-edge of small arms technology.



Home-made weapons in illegal workshops in Darra, Pakistan.

© Associated Press

Small arms technology has not changed significantly in the last 50 years.

Table 1.2 Global distribution of small arms producing companies, 2002

Region	Number (2002)	Percentage
Europe/CIS	500	44
North/Central America	407	36
South America	38	3
Asia-Pacific	96	9
Middle East	59	5
Sub-Saharan Africa	34	3
Total	1,134	100

Source: Omega Foundation (2002)

Recent technological developments have included enhancements to the overall lethality of military small arms through increased accuracy, penetration, and rate of fire. The introduction of laser sighting systems together with incremental advances in the quality of small arms engineering can be expected to produce significant enhancements to the precision and power of future weapons. But basic designs and capabilities have remained fairly stable.

Reliability is of paramount importance to the military, who often perceive little need for change. Older weapons such as Kalashnikov and M16 rifles continue to find favour while they deliver all that is likely to be required. Exceptions to this are the use of electronics for monitoring and control, improved laser aiming devices and the introduction of lighter materials such as titanium and composites.

Table 1.4 Top five small arms producing companies in various weapons categories*

Military side arms	Rifles	Sub-machine guns	Machine guns	Small arms ammunition**	Grenade launchers
Beretta (Italy)	Norinco (China)	Norinco (China)	Norinco (China)	Sellier & Bellot (Czech Rep)	Norinco (China)
Heckler & Koch (UK/Germany)	Winchester Olin (US/Belgium)	Heckler & Koch (UK/Germany)			
Smith & Wesson (US)	Izhmash (Russia)	Izhmash (Russia)	Saco Defense (US)	Nammo (Finland/ Sweden/ Norway)	General Dynamics (US)
Colt (US)	Colt (US)	IMI (Israel)	IMI (Israel)	Giat (France)	Singapore Technologies (Singapore)
FN Herstal (Belgium)	FN Herstal (Belgium)	KBP (Russia)	FN Herstal (Belgium)	FN Herstal (Belgium)	KBP (Russia)

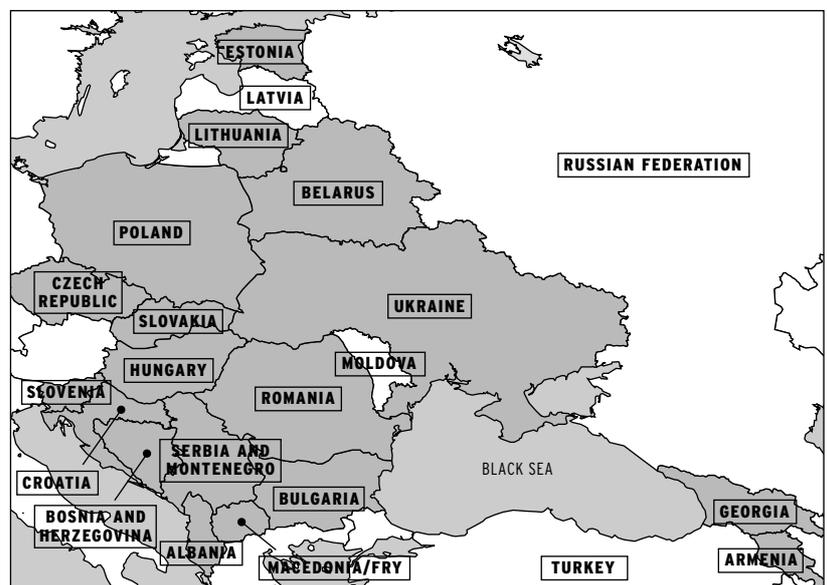
Notes: * Only military-style small arms and light weapons (excludes commercial firearms).
** Does not take into account recent merger between RUAG and Dynamit Nobel.
Source: Gander (2002)

Illicit craft production of small arms takes place in many countries around the world. The chapter examines craft production in Chile, Ghana, Pakistan, the Philippines, South Africa, Turkey, and the Pacific Islands.

Craft production is a minor, but not a negligible segment of global small arms production. It tends to be a low scale, relatively low profile, informal (and illegal) economic activity, carried out in small private workshops, garages, huts, or backyards. The weapons are usually hand-made and rudimentary, often recycling spare parts or remnants of more sophisticated arms. Craft-produced weapons tend to be crude, although they occasionally reach higher levels of sophistication. In almost all cases, home-made small arms are fabricated and sold outside legal frameworks and the formal economy.

Illegal craft production is an important source of weapons for geographically isolated, economically impoverished, or legally prohibited buyers.

At least **18 countries** in Central and Eastern Europe (CEE), excluding the Russian Federation, have the capacity to produce small arms and/or ammunition. During the Cold War era, the CEE countries were major suppliers of small arms to many parts of the world. Since the end of the Cold War, the defence industry in this region has undergone a dramatic process of downsizing, restructuring, consolidation, and privatization, with output and employment shrinking by as much as 90 per cent in many countries. Companies have been forced to modernize their production processes, develop new products (including a switch to NATO standards), adopt market principles, and develop international linkages. As a result, many small arms producers (both state-owned and private) have disappeared through bankruptcy, mergers, or acquisitions. Those that have managed to survive either rely heavily on state contracts and subsidies, or have been forced to pursue aggressively export markets, including sales to highly questionable destinations. Almost no firms have revealed major new products in recent years. Despite these developments, the region still has enormous small arms production capabilities.

Map 1.1 Central and eastern Europe, small arms-producing countries

The global small arms industry faces an unclear technological future. With its core technology stuck on a plateau for the past 50 years and almost certain to stay there for many years to come, it has no obvious possibilities for dramatic growth by developing new markets. While some individual firms are prospering, the industry as a whole seems to be restructuring downwards. Instead of a single pattern, observers of the global small arms industry find numerous and contradictory trends. Though overall sales are down, the number of firms is up. Firms are consolidating while the market becomes more fragmented, expanding while their markets are shrinking, developing new products while most of their technology stands still. Such contradictory trends cannot be sustained indefinitely. It is hard to escape the conclusion that the global small arms industry has only postponed a more fundamental reckoning.