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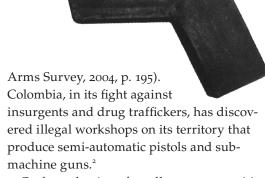
# **Craft Production** of Small Arms

raft production of small arms refers principally to weapons and ammunition that are fabricated largely by hand in relatively small quantities. Craft-produced small arms range from rudimentary pistols and shotguns to more advanced assault rifles. Examples of light weapons include manportable rockets and launchers, mortars and their munitions, as well as grenade launchers. Government authorities may tightly regulate and oversee these artisans' activities and outputs. (Expensive replica antique firearms legally produced in the United States are a good example.) Often, however, this materiel is produced outside of, or under limited, state controls. These weapons are often used in crimes and against government targets.

This Research Note focuses on those weapons and ammunition manufactured without strict oversight. The weapons and groups listed below are representative and not exhaustive.1 (For additional examples, see Small Arms Survey, 2003, pp. 26-36.) Some more established workshops—including "cooperatives", which are springing up in a few locales as government authorities try to enact greater oversight over largely unregulated, if not illegal, activities—may utilize machine tools. This note does not address the production of land mines or improvised explosive devices (IEDs).

## Small arms and ammunition

Several countries have long traditions of artisans producing rudimentary firearms. Blacksmiths in West Africa, for example, produce a range of small arms including pistols and shotguns (Vines, 2005, pp. 352-53). The artisanal firearm industry is especially widespread and developed in Ghana, with some gunsmiths reportedly able to produce assault rifles (Aning, 2005, pp. 79-105). The Peshawar district in Pakistan (one of 22 districts in the North-West Frontier Province) is reportedly home to some 200 workshops producing a wide range of inexpensive small arms, including revolvers and shotguns. Their products are sold at some 1,900 arms shops that operate in the district (Small



Craft production of small arms ammunition is less prevalent. Reloading ammunition, using individual component parts, such as empty cartridge cases or shells with a primer, powder (i.e. propellant), and a bullet or wad and shot (i.e. small metal balls, typically of lead), is a popular pastime for hobbyists, known as handloaders (see Small Arms Survey, 2005, p. 15) around the world and usually practiced on a small scale for personal use. (This activity is often legal, but oversight by the state is just as often minimal or non-existent.) The Free Aceh Movement practiced reloading ammunition (Koorey, 2008, pp. 179-80).3 Video evidence suggests that reloading cartridges is conducted on a much larger scale intended for retail in parts of Pakistan (see, for example, Pearson, 2006).

# Light weapons and their munitions

Mortars are perhaps the most common light weapon that non-state armed groups produce given the relative ease to acquire the necessary materials (which often are commercially available and unrestricted) as well as construct and store the weapons. The Revolutionary Armed Forces of Colombia (FARC) are known to produce mortar grenades as large as 120 mm (Small Arms Survey, 2006, p. 223). The Irish Republican Army produced numerous examples of mortars, often employing them with delayed or remote-control mechanisms. Groups in Myanmar are said to manufacture mortars, among other light weapons and small arms.4

More sophisticated light weapons that are also in wide production include singlelaunched rockets. Various Palestinian armed groups are known to produce these weapons. The best known example is the Al-Qassam rocket, which Hamas introduced in 2001. Several thousand examples have since been produced. Early versions ranged from 60-170 mm



in diameter, weighed 5-90 kg with explosive contents up to 20 kg, and could travel 3-10 km. The more recent models have maximum ranges of around 12 km (Richardson, 2004; 2009). The Liberation Tigers of Tamil Eelam (LTTE), reportedly produced a

rocket—the Pasilan 2000—with a 25 kg warhead (Chalk, 1999, pp. 6, 12).

Other craft-produced light weapons include grenade launchers and rocketpropelled grenades (RPGs). The Moro Islamic Liberation Front in the Philippines, for example, has fabricated copies of the Soviet RPG-2 rocket launcher and the US M-79 grenade launcher (Davis, 2003, p. 35). The LTTE reportedly produced an RPG known as the Arul 89 (India Today, 1997). According to a UN study, lawenforcement officials confiscated handcrafted 40 mm multi-shot grenade launchers that were fabricated in the self-declared Republic of Transdniester (SEESAC, 2006, p. 113, n. 156).

# **Sourcing**

This *Research Note* is based in part on Eric G. Berman and Jonah Leff, "Light Weapons: Products, Producers, and Proliferation," *Small Arms Survey 2008: Risk and Resilience*, Cambridge: Cambridge University Press, pp. 7–41. It has been updated by Eric G. Berman.

## **Notes**

- 1 According to partial information states provided to the United Nations in 1999, illicit craft production of small arms occurred in at least 25 countries (Small Arms Survey, 2003, p. 26)
- 2 Author correspondence with Jorge Restrepo, Director, Conflict Analysis Resource Center (CERAC), 24 February 2011.
- 3 Koorey cites Matthew N. Davies, *Indonesia's* War Over Aceh: Last Stand on Mecca's Porch, London: Routledge, 2006, p. 36.
- 4 For a very good regional overview of craft production in Southeast Asia, see Koorey, 2008, pp. 141–43, and pp. 177–84.

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This Research Note forms part of a series available on the Small Arms Survey website at www.smallarmssurvey.org/publications/by-type/research-notes.html. The online version of this document will be updated as more information becomes available. For more information about craft production of small arms, please visit www.smallarmssurvey. org/weapons-and-markets/producers/craft-production.

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