

Mapping Arms Data

Frequently Asked Questions



What is this project about?

The mapping arms data (MAD) visualization of small arms, light weapons and ammunition transfers was produced by Google as part of the Google Ideas INFO (Illicit Networks, Forces in Opposition) Summit with support from the Igarape Institute and data provided by the Peace Research Institute Oslo (PRIO) small arms database. The PRIO database contains more than 1 million records of exports and imports of small arms, light weapons and ammunition across 250 states and territories between 1992 and 2010. The full MAD tool is available at <http://workshop.chromeexperiments.com/projects/armsglobe/>.

Where does the data come from?

The MAD visualization tool was designed by Google with support from the Igarape Institute and features data aggregated by the Peace Research Institute Oslo (PRIO). The underlying information for MAD includes customs data reported by national governments to the UN Statistics Division's Commodity Trade Statistics Database known as **COMTRADE**. It has then been analysed, cleaned and aggregated by PRIO.

What does the data cover?

COMTRADE is the largest single source of publicly available information on the trade in small arms, light weapons, their parts and ammunition. COMTRADE data includes the following basic information on arms transactions; country of export, country of import, category of weapon/ ammunition transferred, weight of the goods and the recorded financial value of the transaction (USD). It covers a wide range of weapons types, including those include in the visualisation (see section definitions below).

Are there any caveats to the data?

The COMTRADE data has a number of limitations that must be recognized up front:

- COMTRADE provides no information on the end-user for those small arms and ammunition that are traded between countries. In some cases arms and ammunition are re-transferred and diverted (often by dealers and brokers) after the initial transfer.
- COMTRADE data may only partially capture non-commercial transfers, including military aid transported on military ships or aircraft. As such, COMTRADE provides only a partial view of the overall movement of arms and ammunition.
- There is often uneven coverage of all authorized transfers due to poor or absent reporting by states to COMTRADE. For example, large producing countries frequently censor reporting on military style light weapons and small arms while other less developed countries may lack the capacity to monitor and record all arms shipments. It is possible to assess the transparency of country reporting at small arms survey barometer.
- Due to weak or non-existent reporting, the MAD visualization tool provides an incomplete assessment of overall flows of small arms, light weapons and ammunition. For example, countries such as China, North Korea, and the Republic of

Iran along with most of Central Asia and Sub-Saharan Africa are extremely weak in reporting.

- The way weapons are categorized by some countries can obscure differentiation between certain light weapons and small arms. Along with changing coding rules of COMTRADE, this can distort interpretation of the data.

What are small arms and light weapons?

Governments have not agreed upon a universal definition of what constitutes a small arm, light weapon, part, component or ammunition. According to the UN, small arms and light weapons include any “man-portable lethal weapon that expels or launches, is designed to expel or launch, or may be readily converted to expel or launch a shot, bullet or projectile by the action of an explosive.” This definition proceeds from the International Instrument to Enable States to Identify and Trace, in a Timely and Reliable Manner, Illicit Small Arms and Light Weapons (A/60/88), adopted by the United Nations General Assembly on 8 December 2005.

“Small arms” are generally referred to as weapons designed for individual use. They include revolvers and self-loading pistols, rifles and carbines, submachine guns, assault rifles and light machine guns. “Light weapons” are described as weapons designed for use by two or three persons serving as a crew, although some may be carried and used by a single person. They include heavy machine guns, hand-held under-barrel and mounted grenade launchers, portable anti-aircraft guns, portable anti-tank guns, recoilless rifles, portable launchers of anti-tank missile and rocket systems, portable launchers of anti-aircraft missile systems, and mortars.

For the purposes of the data visualization project, all information is aggregated into three categories - military-style weapons, civilian-style arms, and ammunition:

- **Military** weapons include artillery, mortars, machine guns (sub, light, and heavy), assault rifles, combat shotguns, and machine pistols.
- **Civilian** arms consist of pistols, revolvers, sporting shotguns, sporting rifles (anything not rated as a military item including fully automatic weaponry).
- **Ammunition** includes shotgun shells and small caliber ammo (anything below 14.5mm which isn't fired from a shotgun).

The data visualization tool provides an important insight into global trends in arms and ammunition transfers. However, it is not exhaustive. Owing to data limitations, it includes only a subset of small arms and light weapons and excludes a range of other customs categories which include certain light weapons and their parts and ammunition.

Who was involved?

Dr. Robert Muggah from the Igarape Institute supported the development of the MAD visualization project. Based in Rio de Janeiro, the Igarape Institute is a southern think tank devoted to evidence-based policy and action on complex social challenges. Its goal is to stimulate more humane engagement on security and development issues.

The development of the MAD tool also required the support of Nic Marsh from the Norwegian Initiative on Small Arms Transfers (NISAT), a project of PRIO in Norway. Additional expert inputs were supplied by the Stockholm Institute for Peace Research (SIPRI) and the SecDev Group, in Canada. Dr. Muggah also wishes to credit the Small Arms Survey for its ongoing research on issues of transparency.

To visit MAD go to <http://workshop.chromeexperiments.com/projects/armsglobe/>