



Research Report No. 11

# Cartridges of Caracas:

The illicit trade in small-calibre ammunition in Venezuela's capital

N.R. Jenzen-Jones & Pedro Pérez

September 2020



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**A****VOID** the area

**R****ECORD** all relevant information

**M****ARK** the area to warn others

**S****EED** assistance from the relevant authorities

## Disclaimer

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*Cover image: ARES CONMAT Database.*

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## Abbreviations & Acronyms

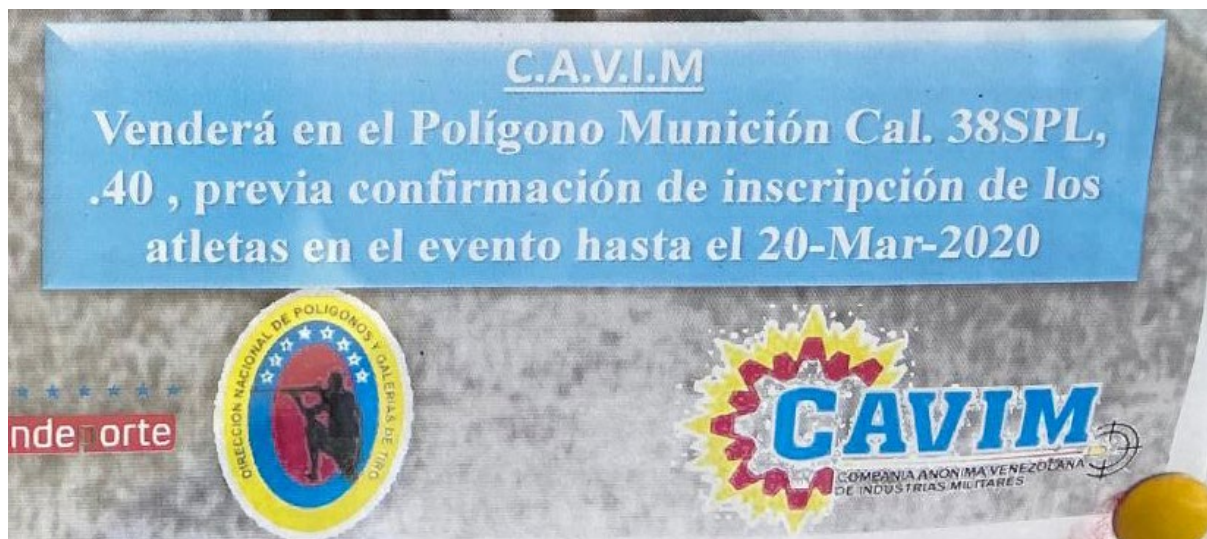
|                  |  |
|------------------|--|
| ACP              | Automatic Colt Pistol (cartridges)   |
| AEX              | <i>Alta Expansión</i> ('high expansion')   |
| AN/FO            | Ammonium nitrate/fuel oil  |
| ANsol            | Ammonium nitrate solution  |
| AP               | Armour-piercing  |
| CAVIM            | <i>Compañía Anónima Venezolana de Industrias Militares</i><br>(‘Venezuelan Company of Military Industries’)                      |
| CICPC            | <i>Cuerpo de Investigaciones Científicas Penales y Criminalísticas</i><br>(‘Scientific Penal and Criminal Investigations Corps’) |
| <i>Corto</i>     | Short  |
| CPHP             | Copper-plated hollow-point   |
| CPRN             | Copper-plated round-nose   |
| CS               | Confidential source  |
| DAEX             | <i>Dirección de Armas y Explosivos</i> (‘Directorate of Arms and Explosives’)  |
| EFMJ             | Expanding full-metal jacket  |
| FANB             | <i>Fuerza Armada Nacional Bolivariana</i><br>(‘National Bolivarian Armed Forces’)  |
| FMJ              | Full-metal jacket  |
| FN Herstal       | <i>Fabrique Nationale de Herstal</i> (‘National Factory of Herstal’)   |
| GGM              | <i>Gerencia General de Metalmecánica</i><br>(‘General Management of Metalworking’)   |
| GGQE             | <i>Gerencia General de Químicos y Explosivos</i><br>(‘General Management of Chemicals and Explosives’)                           |
| HNO <sub>3</sub> | Nitric acid  |
| IDPA             | International Defensive Pistol Association   |
| IPSC             | International Practical Shooting Confederation   |
| JHP              | Jacketed hollow-point  |
| JSP              | Jacketed soft-point  |
| LR               | Long Rifle (when referring to .22 LR ammunition)   |
| OG               | <i>Organismo Gubernamental</i> (‘government agency’)   |
| OP               | <i>Organismo Policial</i> (‘police agency’)  |
| PNB              | <i>Policía Nacional Bolivariana</i> (‘Bolivarian National Police’)   |
| PPC              | Police Pistol Combat   |
| RF               | Rimfire (when used as a suffix in a cartridge designation)   |
| SIIPOL           | <i>Sistema de Investigación e Información Policial</i> (‘Police Investigation and Information System’)                           |
| S&W              | Smith & Wesson   |
| SJHP             | Semi-jacketed hollow-point   |
| SWC              | Semi-wad-cutter  |



## Introduction

At the time of writing (March 2020), ammunition is generally scarce in Venezuela. It is quite common for police and military personnel, with the exception of some select units, to go on patrol with a single magazine for their service weapon. Accordingly, ammunition commands a high price on the illicit market. Within Venezuela, the illicit arms trade is generally conceived of as two parallel and interrelated markets: the 'black' and the 'grey'. In the Venezuelan context, 'black market' activities are those that are not only illegal at present, but have always been illegal. The so-called 'grey market' exists primarily to cater to participants who hold or have formerly held the legal authority to possess firearms, and is comprised primarily of sports shooters, current and former military and law enforcement personnel, hunters, and civilians who hold or held firearms permits for self-defence.<sup>1</sup> The term 'grey market' is used herein to refer solely to the trade in firearms and ammunition by formerly licensed individuals and the quasi-legal trades associated with that. Whilst this report is primarily built upon grey market data, it can be difficult to distinguish the two trades, and they are treated collectively within the dataset (Pérez, Ferguson & Jenzen-Jones, 2020).

The grey market exists primarily as a result of a countrywide and total ban on the sale of small arms and ammunition to and between private individuals in Venezuela which took effect in 2012 (*Noticias24.com*, 2012; Venezuela, 2013). From 1 June 2012, only agents of the state were permitted to sell firearms and ammunition. This has driven sales via social media and secure messaging platforms, and the extant black market has evolved, now including numerous private individuals without criminal ties now participating in interrelated and parallel black and grey markets. Despite the ban, a small number of firearms dealers (formerly licensed by the state) continued to trade with trusted customers, mostly focusing on the supply of ammunition (Pérez, Ferguson & Jenzen-Jones, 2020). There also appears to be a grey area when it comes to sports shooting. At the time of writing, competitors were still able to purchase limited quantities of certain cartridges directly from *Compañía Anónima Venezolana de Industrias Militares* (CAVIM) representatives on-site at shooting events, upon proof of registration (see *Figure 1.1*).



**Figure 1.1** Part of a notice displayed at a sports shooting even in Caracas, Venezuela in March 2020. Competitors were able to purchase limited quantities of .38 Special and .40 S&W cartridges from CAVIM representatives on-site at the event, upon proof of registration (source: ARES).

<sup>1</sup>ARES interviews with confidential sources. For further information regarding the nature of the illicit markets in Venezuela—particularly as to how these operate via online platforms—see ARES Research Report No. 10, *Black & Grey: The illicit online trade of small arms in Venezuela* (Pérez, Ferguson & Jenzen-Jones, 2020).



The grey market existed prior to the ban, but was primarily oriented towards the sale and purchase of ammunition, in order to skirt a monthly limit (50 cartridges per calibre registered) that was placed on permit holders prior to 2012 (Venezuela, 2013). This limit presented a problem for some sport shooters, for example, whose matches would require significantly more ammunition in order to complete, as well as additional requirements for training. It was common for gun stores to offer imported ammunition under the table; this was usually sold at a higher price than that manufactured locally by CAVIM. These transactions were typically conducted only with cash, so as not to generate a digital record of the sale. The ‘traditional’ illegal arms trade in Venezuela—following similar patterns to those seen elsewhere in the world, with dealers serving different segments of a primarily criminal market—has evolved in recent years with the evolution of social media and communications platforms. Initially, illicit sales were primarily enabled by Facebook, but the centre of gravity has since substantially migrated to private WhatsApp groups and then more specifically to broadcast lists<sup>2</sup> on WhatsApp and other platforms.<sup>3</sup> The private groups which initially existed on Facebook and spearheaded the arms trade on social media caught the attention of intelligence services. For a fuller discussion of the mechanisms of Venezuela’s black and grey markets in the internet age, see (Pérez, Ferguson & Jenzen-Jones, 2020).

This report presents a snapshot of the illicit trade in small-calibre ammunition in Caracas, Venezuela, focusing on those trades made via online platforms. The report examines 157 trades made between 1 January 2019 and 20 January 2020, and identifies broad trends within these constraints. The report presents the following key findings:

- Small-calibre cartridges manufactured in at least 15 modern states were offered for sale or trade via the illicit online arms market in Venezuela.
- By total volume of cartridges, manufacturer in the U.S. (approximately 11,000) and Venezuela (approximately 12,000) accounted for the vast majority of ammunition documented.
- Nearly half of all trades (by total volume of trades, rather than cartridges) involved cartridges sold by U.S. manufacturers or brands.
- Handguns are in high demand in Caracas, primarily due to the preference for concealable firearms for self-defence. As a result, pistol-calibre cartridges dominate the dataset (78% of all trades assessed).
- Most trades are apparently conducted with sporting, hobby, and self-defence uses or commercial benefit in mind, but some participants involved in the illicit online arms trade have strong ties to criminal groups within Venezuela.

## Methodology

In preparing this article, the authors have assessed 157 individual trades (offers to sell or trade) related to small-calibre ammunition within the online illicit arms markets of Caracas, Venezuela. Most of these were collected in tandem with research for ARES Research Report No. 10, *Black & Grey: The Illicit Online Trade in Small Arms, Ammunition, and Accessories in Venezuela*, and readers may refer to that report for a more detailed methodology, including a discussion of the process of data compilation and verification, and data analysis used in this report (Pérez, Ferguson & Jenzen-Jones, 2020). The dataset generated by the collections process for Research Report 10 was reviewed in order to identify and remove the small number of entries documented outside of Caracas, and to include new data that the authors documented in the two months between the information cut-off date for the earlier report, and the preparation of this analysis. In total, 135 datapoints were taken from the previous ARES report, and another twenty-two were added by the authors for this assessment.

<sup>2</sup> Broadcast lists on WhatsApp (and similar functions on other platforms) operate in much the same way as the ‘blind carbon copy’ (BCC) function of an email when sent to multiple recipients—that is, the recipient of a broadcast list message can see the sender’s details, but not that of any other recipients. Replies from the initial recipient will not be seen by other recipients (WhatsApp, n.d.).

<sup>3</sup> Limited activity has been documented via the online marketplace Mercadolibre, but this “appears to be minimal and amateurish” (Pérez, Ferguson & Jenzen-Jones, 2020).

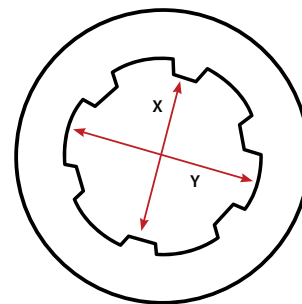
Each trade assessed herein may consist of between one and several thousand cartridges<sup>4</sup>, although most tended to comprise 20–100 rounds. The analysis given below is based on assessing each ‘trade’ once for each identifiable group of cartridges—not the not the number of individual cartridges. Trades are only included if, at a minimum, both calibre and make (manufacturer or brand) can be identified. Conservatively, including unidentified cartridges, it is estimated that more than 35,000 rounds were documented for sale.

The data analysed in this paper is supported up by a number of interviews with confidential sources (CS) operating within Venezuela. All of these sources are, or were, involved in the black or grey markets within the country, and most were operating within the networks monitored during the research phase of this project. A summary of each source’s background is presented in ARES Research Report 10 (Pérez, Ferguson & Jenzen-Jones, 2020). The interviews were conducted by a Venezuelan Spanish speaker via telephone or VOIP services.<sup>5</sup> The quality of the imagery recorded varies by trade. In many cases, only one face of a box was photographed, however some sellers went to considerable lengths to photograph lot numbers, headstamps, projectiles, and other features. Some ammunition not included in the dataset was photographed by an ARES source in Venezuela for the purposes of illustrating key types addressed this report.

## Definitions

This report uses the term ‘small-calibre ammunition’ in this context to refer to ‘small-calibre cartridges’ as defined in the ARES Arms & Munitions Classification System (ARCS). These are “cartridges of less than 20 mm in nominal calibre” (Jenzen-Jones, 2020).<sup>6</sup> In the field of small-calibre ammunition, the terms ‘cartridge’ and ‘round’ are generally accepted as synonymous: both refer to a single complete unit of ammunition. Small-calibre ammunition is primarily employed from small arms, although it is also in use with some light weapons—most notably heavy machine guns (Jenzen-Jones, 2018). None of the cartridges documented in this report were suitable for use with modern heavy machine guns.

The term ‘cartridge designation’ is used to refer to the calibre<sup>7</sup> and case length of a cartridge (e.g., 7.62 × 51 mm). In some cases, a descriptive term may also be appended to this designation (7.62 NATO, or 7.62 × 51 mm NATO, for example). For cartridges that are usually described using imperial measurements, the metric measurements are given in parentheses. The term ‘calibre’ is sometimes used as a stand-in for ‘cartridge designation’. A projectile’s calibre is typically determined by measuring across the features of a weapon’s rifling. The calibre can be determined by measuring the diameter of the lands (X), the diameter of the grooves (Y), or the average diameter of both (X+Y divided by two) (see Figure 1.2). In some cases, the nominal calibre is an arbitrary figure assigned to the cartridge (Jenzen-Jones, 2018).



**Figure 1.2** Common methods of determining a projectile’s calibre use one or more of the distances measured between the lands (X) or grooves (Y) of a rifled barrel (source: ARES).

<sup>4</sup>The largest trade recorded was for 5,000 .22 LR cartridges.

<sup>5</sup>Note that the majority of quotes provided by confidential sources have been translated from Spanish to English, and some grammar has been adjusted for clarity.

<sup>6</sup>A ‘cartridge’ is defined as “a single, self-contained unit of ammunition, consisting of a case, primer, propellant, and one or more projectiles” (Jenzen-Jones, 2020).

<sup>7</sup>Note that the calibre designation of a cartridge reflects the nominal projectile diameter, but this is not necessarily a precise reflection of the projectile’s actual diameter (Jenzen-Jones, 2018).

## The Illicit Ammunition Trade in Venezuela

An analysis of the data and interviews with confidential sources in Venezuela indicates that most trades are conducted with legal or quasi-legal uses in mind, or are conducted primarily for commercial benefit. Most of the participants within the online marketplaces can be distinctly separated into those who are primarily dealers (approximately 20% of users) and those who are primarily consumers (approximately 70% of users). The latter segment of the market is mostly focused on sporting, hobby, and self-defence uses. Some users also expressed a specific interest in ammunition for hunting, and it is thought that this pastime would be more prevalent outside of Caracas. There appeared to be significant overlap between sports shooters (primarily competing in the disciplines of IDPA, IPSC, and PPC<sup>8</sup>) and hobbyist shooters (those who shoot for fun, without a competitive framework), and those seeking firearms and ammunition for self-defence. Several confidential sources described the possession of firearms for self-defence as a necessary fact of life in Caracas—for those with the means to acquire them. Despite the fact that the market is primarily defined by otherwise-law-abiding civilians, some participants involved in the illicit online arms trade have strong ties to criminal groups within Venezuela. Confidential sources indicated that grey market activities are generally self-policed, relying in many ways on an “old boys’ network” of informally trusted individuals that generally requires a recommendation from another participant to access (Pérez, Ferguson & Jenzen-Jones, 2020).

There is significant participation from members of the security services within the grey market, and limited participation by some individuals in the black market. One source indicated that government stockpiles of small-calibre cartridges were dangerously low at the time of writing, and many security personnel have resorted to buying ammunition from the black and grey markets with their own funds. Former and current military, intelligence, and law enforcement personnel participating in and benefitting from the grey market are willing to overlook the illicit nature of these ‘grey’ activities, but sometimes go further still. An analysis of headstamps, contextual information, and interviews with confidential sources indicates that the primary sources for ammunition traded on the illicit market are military and police stockpiles—ammunition is stolen and sold to the highest bidder. As outlined in Pérez, Ferguson & Jenzen-Jones, 2020:

*Sometimes, security forces’ participation in the grey market crosses into ‘black’ activities. In some cases, for example, firearms [and ammunition] which are falsely reported as lost by police or military personnel—or stolen outright—are then offered by these individuals for sale on the black market. [A confidential source interviewed by ARES freely admitted they have] sold items on the black market that were stolen from military or police armouries. Despite participation from police, military, and intelligence personnel, attempts to crack down on the grey market have continued.*

Some participants in the grey market are also able to use their security contacts to access databases maintained by military or law enforcement units, which can help them avoid purchasing firearms or ammunition which have been marked as stolen or otherwise suspect.<sup>9</sup>

Handguns are in high demand in Caracas, primarily due to the preference for concealable firearms for self-defence. Security forces personnel, sometimes forced to purchase illicit ammunition for their service weapons, are most often armed with handguns. As a result of these factors, pistol-calibre cartridges are highly sought after. The 9 × 19 mm cartridge is the most sought-after pistol cartridge, as the standard service sidearms of almost all security personnel are chambered for the cartridge, and it remains one of the most popular sports-shooting

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<sup>8</sup> International Defensive Pistol Association, International Practical Shooting Confederation, and Police Pistol Combat, respectively.

<sup>9</sup> Some Venezuelan-made cartridge headstamps are marked with lot numbers that can be traced to a specific security unit, as outlined elsewhere in this report.

cartridges, both in Venezuela and globally. Additionally, 9 × 19 mm ammunition has historically been produced in very high volumes by CAVIM, the state-owned arms and ammunition manufacturer and the most commonly found ammunition brand in the dataset. The domestic supply of 9 × 19 mm ammunition now appears to be heavily supplemented by imports from China (see *9 × 19 mm Cartridges*, p.18 ).

Interviews with confidential sources and an assessment of some of the more unusual cartridges documented within the dataset indicate that, in addition to those individuals purchasing ammunition for sports shooting, self-defence, and criminal purposes, there are a small number of ammunition collectors in Venezuela. According to one source, these hobbyists sometimes seek out specific cartridges from larger dealers, and are also known to seek trades and purchases via the same digital channels used for the illicit trade in small-calibre ammunition. Unsurprisingly, trades by collectors tend to comprise small total numbers of cartridges.

## CAVIM

The Venezuelan state-owned arms producer, the *Compañía Anónima Venezolana de Industrias Militares* (CAVIM), was founded by decree in 1975. Law number 883 of 28 April created the *Consejo Nacional de las Industrias Militares* (National Council of Military Industries) and provided for the formation of a company to provide for both domestic arms production and commercial activities (CAVIM, n.d.). This new company centralised previous, scattered efforts in arms and munitions design and production within the country, and officially commenced commercial activities on 15 January 1976. In addition to an office headquarters in Caracas, CAVIM operates two primary production facilities: a metalworking division in Maracay, in the state of Aragua, located in north-central Venezuela, about 75 km southwest of Caracas; and an explosives plant in Morón, in the state of Carabobo, located on the coast approximately 100 km west of Caracas.<sup>10</sup> CAVIM is administered by military personnel from the *Fuerza Armada Nacional Bolivariana* (FANB; 'National Bolivarian Armed Forces'), with most personnel drawn from the Army. The President of the company is a general, whilst the division heads are colonels.

In the early 2000s, the divisions in Maracay and Morón were upgraded and expanded, with new plant under the direction of the *Gerencia General de Metalmecánica* (GGM; 'General Management of Metalworking') and *Gerencia General de Químicos y Explosivos* (GGQE; 'General Management of Chemicals and Explosives') at their respective sites. Adding to its basic machine shop, small arms, and ammunition production capabilities, GGM received new assembly lines to enable the production of hollow charges, a broader range of small arms, and riot control agents. The GGQE introduced plant for the production of ammonium nitrate in solution (ANSol). Existing facilities were also upgraded. The GGM's precision machining centre received modernised tools and a production line for body armour was introduced. The GGQE's nitric acid plant was upgraded to increase its output from 60 to 80 tons of dilute HNO<sub>3</sub> per day, and modernised facilities for the production of nitro-glycerine, calcium nitrate, and magnesium nitrate were installed (CAVIM, n.d.). More recently, GGM also added an ammunition disposal plant and has introduced the C-Caribe sub-machine gun, a bullpup design chambered for 9 × 19 mm (Pérez, 2019; CAVIM, 2019). Today, in addition to arms and munitions, GGM also produces a range of products for both military and civilian use. These include metal items (bowls, canteens, cutlery), plastic products (water bottles), radios, body armour, ceremonial swords, boots for the armed forces, and even clay pigeons for sports shooting (CAVIM, 2017; 2019). In 2017, GGQE's outputs included magnesium nitrate and calcium nitrate; ammonium nitrate in both solution<sup>11</sup> and prills<sup>12</sup>; and nitrocellulose in various forms (CAVIM, 2017). Recently, a liquid fertiliser plant was installed (CAVIM, 2019).

<sup>10</sup> CAVIM also operates an optics and optronics facility in El Sombrero (in Guárico state, about 100 km south of Caracas) and an office in Ciudad Piar—a mining town located in the country's interior in the state of Bolívar, some 500 km southeast of Caracas—which supervises the use of explosives by state-controlled mining operations (CAVIM, n.d.).

<sup>11</sup> Ammonium nitrate is produced by CAVIM at concentrations suitable for use as an explosive (84%) and as a fertiliser (62%) (CAVIM, 2017). The 2017–2018 CAVIM export plan identified the production and export of chemicals and fertilisers as a priority area for the company (CAVIM, 2019).

<sup>12</sup> Typically used as a blasting agent by mixing with fuel oil (AN/FO).



**Figure 2.1** Wooden crates each containing 3,000 9 × 19 mm CAVIM cartridges packaged in 25-round cardboard boxes. These cartridges feature an ‘OG’ code, which is written on the crates with permanent marker, identifying the unit or institution issued the ammunition, in this case the Universidad Experimental de la Seguridad (source: CAVIM). (source: CAVIM).

There is little publicly available information regarding the manufacture of small-calibre cartridges by CAVIM. Cartridges produced prior to CAVIM’s formation—such as those made for Venezuela under contract by FN Herstal in Belgium—typically featured a “VEN” headstamp. Cartridges produced by CAVIM have generally featured a “CAVIM” headstamp, although imported cartridge cases with other headstamps have also been used. Ammunition production has varied widely in terms of production output and the range of products offered, according to military sources in Venezuela. ARES was told that the production of all calibres of ammunition by CAVIM has slowed down noticeably over the past ten to fifteen years. An examination of CAVIM catalogues, packaging, and marketing material from the 1980s to 2017 indicates that the range of cartridges offered by the factory has also been reduced over the last decades. In fact, it appears that CAVIM may not be producing any 9 × 19 mm cartridges at the time of writing—a confidential military source in Venezuela told ARES that, as of March 2020, CAVIM is only producing the following pistol calibre cartridges: .380 ACP (9 × 17SR mm), .38 Special (9 × 29.5R mm), and .357 Magnum (9 × 33R mm). By comparison, catalogues from the 1980s & 1990s also include .32 S&W Long (7.65 × 23R mm), .38 Corto (9 × 20R mm)<sup>13</sup>, .32 ACP (7.65 × 17SR mm), 9 × 19 mm, .45 ACP (11.45 × 23 mm) (CAVIM, c.1980s; c.1990s). A 2017 catalogue (see *Figure 2.2*) lists only 9 mm and “38 mm [sic]” handgun cartridges (CAVIM, 2017).<sup>14</sup> Sources also indicate that FMJ cartridges account for the vast majority of current production. Historically, a significant proportion of the cartridges sold ‘under the table’ were of the jacketed hollow-point (JHP) type, as this type of ammunition was rarely produced by CAVIM until recent decades, with the introduction of the 9 mm AEX cartridge<sup>15</sup> (see *9 × 19 mm Cartridges*, p.18 ).<sup>16</sup>

<sup>13</sup> A .38 Special cartridge with a case length cut-down to 19.8 mm (CAVIM, c.1980s). This is very close to the old .38 S&W cartridge. According to Venezuelan sources, .38 Corto cartridges were fairly commonplace in Latin America—particularly for sports shooting—in the 1970s and 1980s. They are rare in Venezuela today.

<sup>14</sup> This includes a “CALIBER 38mm [sic] CORTO”, although Venezuelan sources ARES spoke with say they have never seen recent headstamps on cartridges in this calibre.

<sup>15</sup> .308 JHP was sold in the 1980s and 1990s (CAVIM, c.1980s; c.1990s).

<sup>16</sup> ARES interviews with confidential sources.



The range of rifle-calibre cartridges produced by CAVIM also appears to have been reduced in recent years. In the 1980s and 1990s, 7 × 57mm, 7.62 × 39 mm, 7.62 × 51 mm, and .308 Winchester cartridges were offered in a total of eight loadings. The 2017 catalogue lists only 7.62 × 51 mm and 7.62 × 39 mm cartridges, and only shows ball (FMJ) loadings. Military sources in Venezuela indicated that the overwhelming majority of the now-standard latter calibre cartridges they had seen were produced in either Russia or China. Within the dataset, the only 7.62 mm rifle cartridges documented were from the U.S. and China (see *7.62 × 51 mm & 7.62 × 39 mm Cartridges*, p.33). Shotgun cartridge production appears to have remained consistent, with a range of loadings for 12-gauge and 16-gauge ammunition being produced (CAVIM, c.1980s; c. 1990s; 2017).



**HECHO EN VENEZUELA CON CALIDAD DE EXPORTACIÓN**  
*Productiva y Competitiva*



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**CARTUCHERÍA METÁLICA Y PLÁSTICA**

**MARCAJE DE MUNICIÓN**

**ARMAS CORTAS**

CALIBRE 9 mm. (CAJAS DE 50 UNID.)  
 CALIBRE 9 mm. EXPANSIVA (CAJAS DE 50 UNID.)  
 CALIBRE 38 mm. SPL BLINDADO (CAJAS DE 50 UNID.)  
 CALIBRE 38 mm. WC (CAJAS DE 50 UNID.)  
 CALIBRE 38 mm. OJIVAL (CAJAS DE 50 UNID.)  
 CALIBRE 38 mm. CORTO (CAJAS DE 50 UNID.)

**ARMAS LARGAS**

CALIBRE 7.62 X 51 mm (CAJAS DE 20 UNID.)  
 CALIBRE 7.62 X 39 mm (CAJAS DE 20 UNID.)

**ESCOPETAS**

CALIBRE 12 N° 4 (CAJAS DE 25 UNID.)  
 CALIBRE 12 N° 6 (CAJAS DE 25 UNID.)  
 CALIBRE 12 N° 7 ½ (CAJAS DE 25 UNID.)  
 CALIBRE 12 N° 7 (CAJAS DE 25 UNID.)  
 CALIBRE 12 N° 8 (CAJAS DE 25 UNID.)  
 CALIBRE 12 N° 9 (CAJAS DE 25 UNID.)  
 CALIBRE 12 N° ANTIMOTÍN (CAJAS DE 25 UNID.)  
 CALIBRE 12 N° 3 EN BOCA (CAJAS DE 25 UNID.)  
 CALIBRE 12 N° 4 EN BOCA (CAJAS DE 25 UNID.)  
 CALIBRE 16 N° 4 (CAJAS DE 25 UNID.)  
 CALIBRE 16 N° 6 (CAJAS DE 25 UNID.)  
 CALIBRE 16 N° 3 EN BOCA (CAJAS DE 25 UNID.)  
 CALIBRE 16 N° 7 ½ (CAJAS DE 25 UNID.)



9x19 mm.



9x19 mm.



38 mm.



7.62x51 mm. 7.62x39 mm.



Calibre 16 mm.



Calibre 12 mm.



Calibre 12 mm.

**Figure 2.2** An extract from a 2017 CAVIM catalogue—the most recent available on their website at the time of publication—which shows the small-calibre ammunition offerings (source: CAVIM).



## Describing the Dataset

The dataset contains 157 trades which included small-calibre cartridges. The overwhelming majority of documented trades involved ammunition produced in either the United States (45%) or Venezuela (27%). Whilst the U.S. trades accounted for a higher percentage by frequency, the Venezuela trades accounted for a higher total number of cartridges. It is estimated that the 70 trades that included ammunition identified produced in the U.S. accounted for approximately 11,000 total cartridges, whilst the 42 trades which included Venezuelan ammunition accounted for at least 12,000 total cartridges. Additionally, a large number of the cartridges which could not be conclusively identified (see *Figure 3.1*) are assessed as likely of Venezuelan origin. The dataset contains ammunition produced by thirty-eight different brands or manufacturers. Of these, the most common were CAVIM (Venezuela; 42 trades), Winchester (United States; 20 trades), Remington (United States; 12 trades), and Federal Ammunition (United States; 11 trades). Indeed, the sixteen different American manufacturers are represented in the dataset (see *Figure 3.2*). All Venezuelan ammunition documented was produced by CAVIM. Trades by country and make, excluding the U.S. and Venezuela, are shown in *Figure 3.3*.



**Figure 3.1** .38 Special cartridges which could not be conclusively identified (and hence are not included in the dataset), but which are assessed as most likely being of Venezuelan origin (source: ARES CONMAT Database).

Figure 3.2 — American Cartridge Makes by Trade Frequency

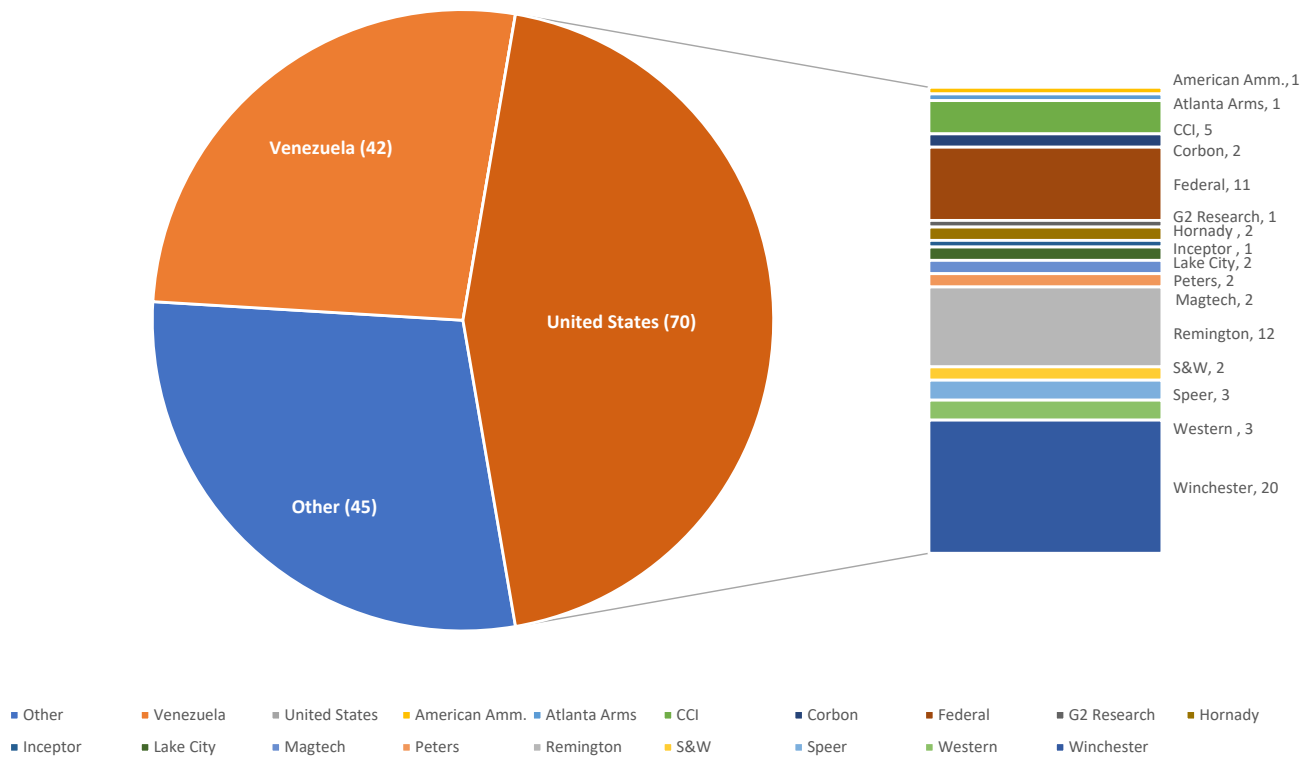


Figure 3.3 — Recorded Trades by Country of Origin &amp; Make (Excluding the United States &amp; Venezuela)

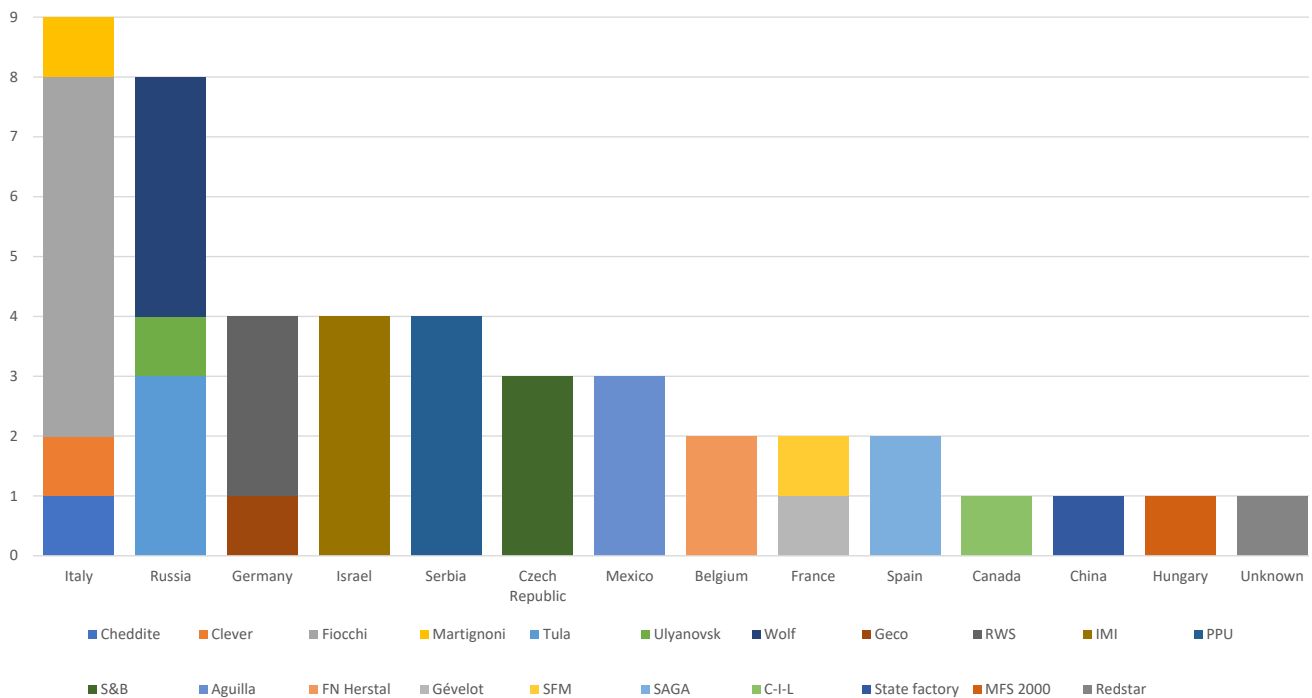
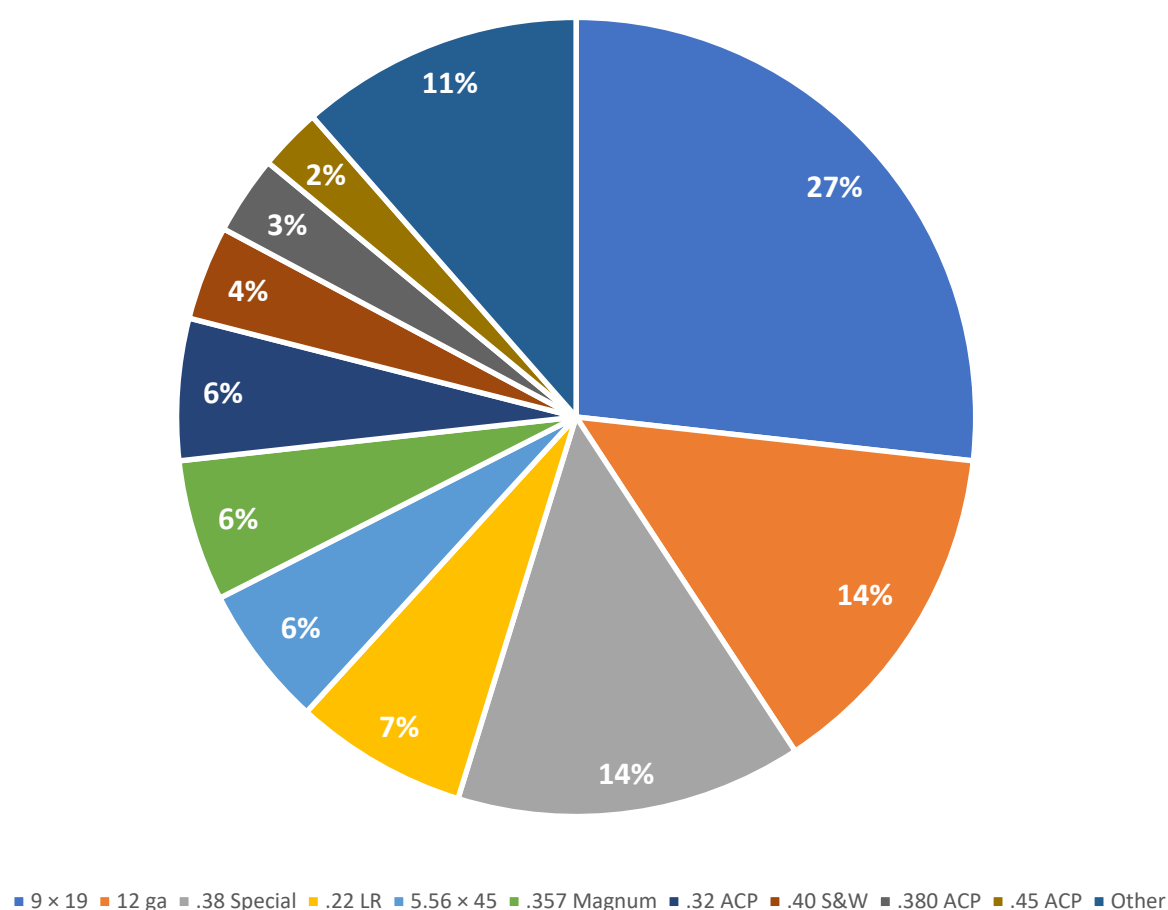


Figure 3.4 shows recorded trades by calibre. The most common cartridges recorded in the dataset were 9 × 19 mm (accounting for 27% of trades), 12-gauge shotgun cartridges (14%), and .38 Special (14%). Cartridges which can be considered ‘pistol-calibre’ comprised some 78% of the dataset—remarkably similar to the percentage of firearms classified as handguns in the dataset for ARES Research Report 10 (77%). These datapoints, especially when taken together, strongly support claims from Venezuelan sources that handguns and their ammunition are the most sought-after weapons in Caracas. Shotguns were identified in Research Report 10 as another important home defence weapon, and shotgun cartridges account for 15% of the dataset of this report (Pérez, Ferguson & Jenzen-Jones, 2020). With the exception of a single trade offering 16-gauge cartridges, all were 12-gauge cartridges in various loadings (including birdshot, buckshot, and slug types). A confidential source indicated that locally produced (CAVIM) shotshells remain reasonably affordable, and are used in both competition and recreational shooting. The only rifle cartridge represented in significant quantities within the dataset is the 5.56 × 45 mm cartridge. This is consistent with the weapon’s popularity in Venezuela (and, indeed, globally). With the exception of one trade for 7.62 × 39 mm cartridges, the other rifle cartridges documented appear to be primarily intended for hunting. This assumption is supported by statements made in ‘want to buy’ posts observed by ARES. Other rifle cartridges in the dataset include: .220 Swift, .243 Winchester, and 7.62 × 51 mm.

Figure 3.4 — Recorded Trades by Calibre



## Ammunition Analysis

### 9 × 19 mm Cartridges

9 × 19 mm cartridges dominated the dataset, accounting for 42 trades, or nearly 27 per cent of all those documented. Most often—with the notable exception of Venezuelan ammunition—these cartridges were sold in standard boxes of fifty cartridges, although there were several examples of 20-round boxes of specialty defensive ammunition offered for trade. Several larger trades, ranging from 300 to nearly 2,000 cartridges were documented; in all cases, these were CAVIM branded.

In recent years, CAVIM has produced—and imported; see below—both FMJ and expanding 9 × 19 mm cartridges for domestic sale, with the latter restricted to security forces. Whilst 50-round boxes are circulating, most 9 × 19 mm ammunition is packaged in 25-round boxes. Cartridges packaged in these boxes (either white or brown, as described below) accounted for more than 90% of all Venezuelan 9 × 19 mm ammunition documented. According to a confidential source, the reason why CAVIM packaged their 9 × 19 mm cartridges in 25-round boxes was because the standard loadout for the issued Browning Hi-Power pistol was two 13-round magazines, each loaded to 12 rounds per standard practice, plus one round in the chamber of the weapon, for a total of 25. Additionally, the Uzi sub-machine gun (SMG) was widely issued with 25-round magazines—perhaps offering another reason to package and issue 9 × 19 mm ammunition in 25 round boxes.

Venezuelan 9 × 19 mm FMJ cartridges are known to be available in three distinct configurations. The first type is packaged in brown cardboard boxes, each containing 25 rounds (see *Figure 4.1*) marked with a headstamp that reads “CAVIM” at the 12 o’clock position and features a two-digit year of production code in the 6 o’clock position (see *Figure 4.3a*). Cartridges with the same physical characteristics and markings are also available in 50-round, white cardboard ‘logo boxes’, which are sometimes supplied at sports shooting events (see *Figure 4.4*). Some sources have suggested this packaging is no longer used, and it is interesting to note that the logo box describes its contents as “9 mm Luger”, whilst the 25-round current-issue boxes use the name “9mm Parabellum”.



**Figure 4.1** 9 × 19 mm ammunition supplied by CAVIM for domestic Venezuelan use, in the ‘brown box’ and ‘white box’ packaging. Note that the lot numbers have been redacted to prevent their connection with the confidential source who supplied the images (source: ARES).

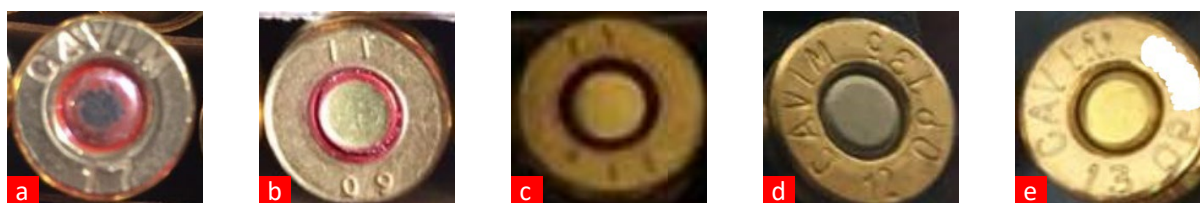




**Figure 4.2** Open 25-round boxes of ‘brown box’ (left) and ‘white box’ (right) 9 × 19 mm cartridges supplied by CAVIM for domestic use. Note the differing orientations of the cartridges within the packaging.

The second type are packaged in 25-round white cardboard boxes (see *Figure 4.1*). Local sources claim these latter cartridges are imported from China, and an assessment of the physical features and markings of the cartridges supports this assessment.<sup>17</sup> There is variance between different lots of cartridges packaged in this way, however the headstamp is always in one of two configurations. The first configuration features two long bars (“II”) at the 12 o’clock position, and a two-digit year of production code in the 6 o’clock position (*Figure 4.3b*). In some of the samples observed, the headstamp of ‘white box’ ammunition bears no year marking at all, and reads simply “II” in both the 12 and 6 o’clock positions—irrespective of the year of production and lot number displayed on the packaging (*Figure 4.3c*).<sup>18</sup> Some local sources had never seen the ‘white box’ ammunition with a year marking, and claimed the “II II” configuration was the norm.

In addition to differences in markings and colouration of the boxes, the cartridge orientation within the 25-round packaging types also appears to vary. In all cases that the authors have seen, cartridges are packaged projectile-up (relative to the markings on the packaging) in the brown boxes and projectile-down in white boxes. The locally made ammunition is preferred by sports shooters, home defence buyers, and security forces alike. Military and law enforcement sources told ARES that, wherever possible, they personally tried to obtain brown-box ammunition whenever both were issued concurrently, believing it to be of superior quality.<sup>19</sup>



**Figure 4.3** Headstamps from observed examples of 9 × 19 mm ammunition supplied by CAVIM for domestic Venezuelan use. a–e: ‘brown box’ and (believed to be produced domestically); ‘white box’ variant 1; ‘white box’ variant 2; FMJ with ‘OP’ tracking number; AEX with ‘OP’ tracking number<sup>20</sup> (source: ARES; ARES CONMAT Database).

<sup>17</sup> ARES interviews with confidential sources.

<sup>18</sup> It has been suggested cartridges with this headstamp configuration were produced in 2011, however they have been documented inside boxes with 2009 and 2010 lot markings.

<sup>19</sup> ARES interviews with confidential sources.

<sup>20</sup> OP number redacted to protect source.



**Figure 4.4** 9 × 19 mm ammunition as supplied by CAVIM for domestic Venezuelan use, including some sporting events. Some sources have suggested this packaging is no longer produced (source: ARES).

The third type of 9 × 19 mm FMJ ammunition currently or recently produced by CAVIM is the same as the 'brown box' variety, but features a headstamp which identifies the government agency to which the ammunition was issued. This reads: CAVIM – OP[XXX] – [year of production], where 'XXX' is a three-digit number which corresponds to which police department or division they were issued to (OP stands for *organismo policial*, or 'police agency'; see Figure 4.3d). Alternative marking formats instead use 'OG' (for *organismo gubernamental*, or 'government agency') rather than 'OP'. Ammunition so marked is supplied in a translucent white plastic box covered with a green label (see Figure 4.5). It is believed that the unit-identification code scheme—featuring codes assigned by DAEX—was introduced in 2012, although it was not universally applied to new production cartridges. CAVIM's specifications for 9 × 19 mm cartridges are given in Table 4.1, below.

**Table 4.1 — CAVIM Specifications for 9 × 19 Cartridges**

| Type  | Cartridge length     | Cartridge weight   | Projectile weight  | Velocity (V <sub>10</sub> ) | Energy (E <sub>10</sub> ) |
|-------|----------------------|--------------------|--------------------|-----------------------------|---------------------------|
| FMJ   | 29.7 mm<br>(1.17 in) | 12.2 g<br>(188 gr) | 8.0 g<br>(124 gr)  | 345 m/s<br>(1,132 fps)      | 48.0 kg/m<br>(347 ft-lb)  |
| FMJ   | -                    | -                  | 7.45 g<br>(115 gr) | -                           | -                         |
| JFP   | 29.7 mm<br>(1.17 in) | 12.2 g<br>(188 gr) | 8.0 g<br>(124 gr)  | 300 m/s<br>(984 fps)        | 36.7 kg/m<br>(265 ft-lb)  |
| LRN   | 28.1 mm<br>(1.11 in) | 12.2 g<br>(188 gr) | 8.0 g<br>(124 gr)  | 295 m/s<br>(968 fps)        | 36 kg/m<br>(260 ft-lb)    |
| AEX   | -                    | -                  | 7.15 g<br>(110 gr) | -                           | -                         |
| Blank | 25.6 mm<br>(1.01 in) | 5.1 g<br>(79 gr)   | N/A                | N/A                         | N/A                       |

Sources: CAVIM, c. 1980s; c. 1990s; ARES, n.d.





**Figure 4.5** 9 × 19 mm produced by CAVIM and packaged in a white translucent plastic box with a green label. Note the slight variation of the box at bottom-right from the others. These boxes are currently used for cartridges marked with an OP or OG number (source: ARES).

The highly sought-after AEX (*Alta Expansión*; ‘high expansion’) cartridge is also marked and packaged in a similar way (see Figures 4.3e & 4.6). The AEX uses a 110 gr (7.15 g) flat-nosed expanding full-metal jacket (EFMJ)-type projectile—allegedly a copy of the Federal Ammunition EFMJ design—and is widely issued to Venezuelan law enforcement. As far as the authors can tell, all AEX cartridges are marked with OP/OG tracking numbers (see Figure 4.7). The AEX is relatively uncommon on the illicit market (see Figure 4.8) but is in high demand for home defence applications. One civilian source told ARES that it was his preferred ammunition for the handgun he concealed in his vehicle during his commute to and from work. A Venezuelan security source noted that many police personnel illegally sell their issued AEX rounds in order to purchase a larger quantity of standard FMJ rounds, due to the premium the EFMJ cartridges command on the illicit market, when compared with standard FMJ rounds.



**Figure 4.6** A 50-round plastic box containing CAVIM 9 × 19 mm AEX (‘high expansion’) cartridges. The lot number has been redacted (source: ARES).



**Figure 4.7** A CAVIM marketing image showing the headstamp format, including 'OP' tracking number, as marked on 9 × 19 mm AEX ('high expansion') cartridges (source: CAVIM).



**Figure 4.8** Two CAVIM 9 × 19 mm AEX ('high expansion') cartridges (source: ARES).



### .38 Special Cartridges

.38 Special cartridges were the third-most frequent calibre of ammunition documented for sale, with 22 individual trades (estimated to account for approximately 1,100 rounds) being recorded. The majority of these cartridges were of Venezuelan origin, as .38 Special is one of the few calibres that has been produced by CAVIM on an ongoing basis for several decades. A majority of cartridges were FMJ types, including all examples in one large trade of 250 rounds. LRN types were the next most-popular, followed by JHP.<sup>21</sup> This broadly reflects the general availability of each of these types in Venezuela, as described to ARES by confidential sources. Of the CAVIM cartridges, 25-round brown cardboard boxes were common as were white plastic boxes with a black label (see *Figure 4.9*). One 50-round ‘old-style’ blue cardboard box was also documented (see *Figure 4.10*). Some CAVIM-packaged .38 Special ammunition features a headstamp with a ‘star-line-star’ configuration in the 12 o’clock position and the calibre in the 6 o’clock position. It is not clear whether this is a CAVIM headstamp, or whether the cartridges are assembled using imported cases or are produced under contract by another manufacturer. CAVIM’s specifications for .38 Special cartridges are given in *Table 4.2, below*.

**Table 4.2 — Small Arms by Make or Manufacturer**

| Type                    | Cartridge length     | Cartridge weight   | Projectile weight         | Velocity (V <sub>10</sub> ) | Energy (E <sub>10</sub> )                  |
|-------------------------|----------------------|--------------------|---------------------------|-----------------------------|--|
| FMJ                     | 39.6 mm<br>(1.60 in) | 13.0 g<br>(200 gr) | 8.0 g<br>(124 gr)         | 325 m/s<br>(1,066 fps)      | 43.0 kg/m<br>(311 ft-lb)                   |
| LRN                     | 39.1 mm<br>(1.54 in) | 15.0 g<br>(231 gr) | 10.2 g<br>(158 gr)        | 270 m/s<br>(886 fps)        | 76 kg/m [sic] <sup>22</sup><br>(550 ft-lb) |
| Wad-Cutter              | 29.4 mm<br>(1.16 in) | 14.3 g<br>(220 gr) | 9.6 g<br>(148 gr)         | 245 m/s<br>(804 fps)        | 29.0 kg/m<br>(210 ft-lb)                   |
| Semi Wad-Cutter         | 28.1 mm<br>(1.11 in) | 14.9 g<br>(230 gr) | 10.2 g<br>(158 gr)        | 270 m/s<br>(886 fps)        | 38.0 kg/m<br>(275 ft-lb)                   |
| Shot                    | 38.8 mm<br>(1.53 in) | 11.8 g<br>(180 gr) | 7.5 g (total)<br>(115 gr) | 340 m/s<br>(1,115 fps)      | -  |
| Blank                   | 29.1 mm<br>(1.15 in) | 5.1 g<br>(79 gr)   | N/A                       | N/A                         | N/A  |
| .38 Corto <sup>23</sup> | 29.4 mm<br>(1.16 in) | 5.1 g<br>(79 gr)   | 10.2 g<br>(157.4 gr)      | 200 m/s                     | 20.0 kg/m<br>(145 ft-lb)                   |

Sources: CAVIM, c. 1980s; c. 1990s; ARES, n.d.

<sup>21</sup> Some or all of the JHP cartridges with Venezuelan headstamps are believed to be reloads, as they were sold by a prolific trader known for reloading ammunition.

<sup>22</sup> This appears to be an error in the original source, where the correct figures have been inexplicably doubled.

<sup>23</sup> Although no examples of .38 Corto were documented, CAVIM specifications for this cartridge are included for the reader’s interest.



Figure 4.9 CAVIM packaging containing fifty .38 Special cartridges, consisting of a white plastic box with black label (source: ARES).



Figure 4.10 CAVIM 'old-style' blue cardboard packaging containing fifty .38 Special cartridges (source: ARES).



**Figure 4.11** A white plastic tray of 50 CAVIM .38 Special LRN cartridges, removed from its outer cardboard packaging (source: ARES CONMAT Database).

The second-most common country of origin for .38 Special ammunition was the United States, with seven documented sales accounting for some 271 rounds. Most of these were produced by Winchester, 100 of which were 150 gr LRN from two separate sales of 50 rounds each. The balance consisted of 50 rounds of FMJ from another sale. Also recorded were two sales each of 50 Remington LRN rounds, one sale of 20 Corbon 158 gr +P JHP rounds, and the sale of a single Corbon 'Glaser' 80 gr +P JHP cartridge. The remainder of the ammunition recorded for sale consisted of 100 Israeli IMI +P FMJ cartridges, 50 Czech Sellier & Bellot JSP rounds, and the sale of a single French SFM THV high-velocity penetrator round.

## **.22 LR Cartridges**

.22 LR cartridges were plentiful in the dataset, with high-volume sales the norm. Eleven sales accounted for a total of 9,590 rounds of ammunition on the market. The vast majority (9,390) of these were American in origin, with these comprising 7 of the 11 trades documented. Two large offers of Remington LRN cartridges included of 4,000 and 5,000 rounds. Other brands represented included Winchester (100 cartridges) Peters 'Victor High Speed' (50), Federal Ammunition American Eagle (40), and CCI 'MiniMag' (100). The types of .22 LR available for sale included copper-plated hollow-point (CPHP), copper-plated round-nosed (CPRN), and LRN. 50 Mexican Aguila 'SuperExtra' rounds and 150 German RWS LRN cartridges were also traded.



**Figure 4.12** German RWS Rifle Match and R 50 lead round-nose type .22 LR cartridges (source: ARES CONMAT Database).



### .357 Magnum Cartridges

404 .357 Magnum cartridges were documented in nine individual trades. .357 Magnum cartridges with a range of projectile types were offered, including FMJ, JHP, JSP, LRN, semi-jacketed hollow-point (SJHP) and semi-wad cutter (SWC) (see *Figure 4.14*). More than half of the .357 Magnum rounds for sale were American in origin, with 6 sales accounting for 254 rounds. All sales of American cartridges were in batches of 50 rounds each, except for the sale of 4 loose Hornady Critical Defence JHP rounds. American-made hollow-point cartridges remain in very high demand for self-defence use, and can command prices substantially higher than their Venezuelan equivalents. One sale of 50 Russian Tula Cartridge Works FMJ rounds and one sale of 50 Italian Fiocchi FMJ rounds were also documented. Only one sale of CAVIM ammunition was recorded, which comprised 50 SWC rounds (see *Figure 4.13*). CAVIM's specifications for .357 Magnum cartridges are given in *Table 4.3*, below.

**Table 4.3 — CAVIM Specifications for .357 Magnum Cartridges**

| Type       | Cartridge length     | Cartridge weight   | Projectile weight  | Velocity ( $V_{10}$ )  | Energy ( $E_{10}$ )      |
|------------|----------------------|--------------------|--------------------|------------------------|--------------------------|
| FMJ        | 39.6 mm<br>(1.60 in) | 13.0 g<br>(200 gr) | 8.0 g<br>(124 gr)  | 325 m/s<br>(1,066 fps) | 79.0 kg/m<br>(571 ft-lb) |
| LRN        | 39.5 mm<br>(1.56 in) | 15.5 g<br>(240 gr) | 10.2 g<br>(158 gr) | 355 m/s<br>(1,165 fps) | 65 kg/m<br>(474 ft-lb)   |
| Wad-Cutter | 29.4 mm<br>(1.16 in) | 14.3 g<br>(220 gr) | 9.6 g<br>(148 gr)  | 245 m/s<br>(804 fps)   | 29.0 kg/m<br>(210 ft-lb) |

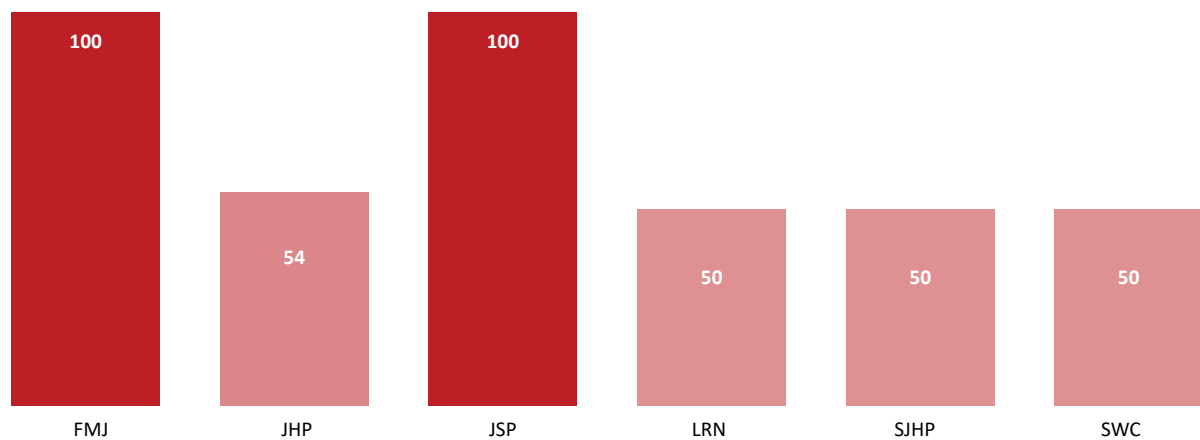
Sources: CAVIM, c. 1980s; c. 1990s.



**Figure 4.13** White plastic box packaging with a dark blue label, containing 50 CAVIM .357 Magnum SWC cartridges (source: ARES).



Figure 4.14 — Bullet Type by Quantity (.357 Magnum)



### .32 ACP Cartridges

Nine sales of .32 ACP cartridges were recorded, totalling 669 rounds of ammunition manufactured in a variety of countries. CAVIM produces .32 ACP, and as such a small majority of the cartridges for sale were manufactured domestically, including one large sale of 200 FMJ rounds. The other 50-round sale of CAVIM .32 ACP ammunition is notable for having an identifiable lot number (see *Figure 4.15*) In both cases the cartridges were packaged in 50-round boxes. CAVIM's specifications for .32 ACP cartridges are given in *Table 4.4*, below.

Table 4.4 — CAVIM Specifications for .32 ACP Cartridges

| Type | Cartridge length     | Cartridge weight  | Projectile weight | Velocity (V <sub>10</sub> ) | Energy (E <sub>10</sub> ) |
|------|----------------------|-------------------|-------------------|-----------------------------|---------------------------|
| FMJ  | 25.0 mm<br>(0.98 in) | 7.8 g<br>(120 gr) | 4.6 g<br>(71 gr)  | 280 m/s<br>(919 fps)        | 18.4 kg/m<br>(133 ft-lb)  |

Sources: CAVIM, c. 1980s.

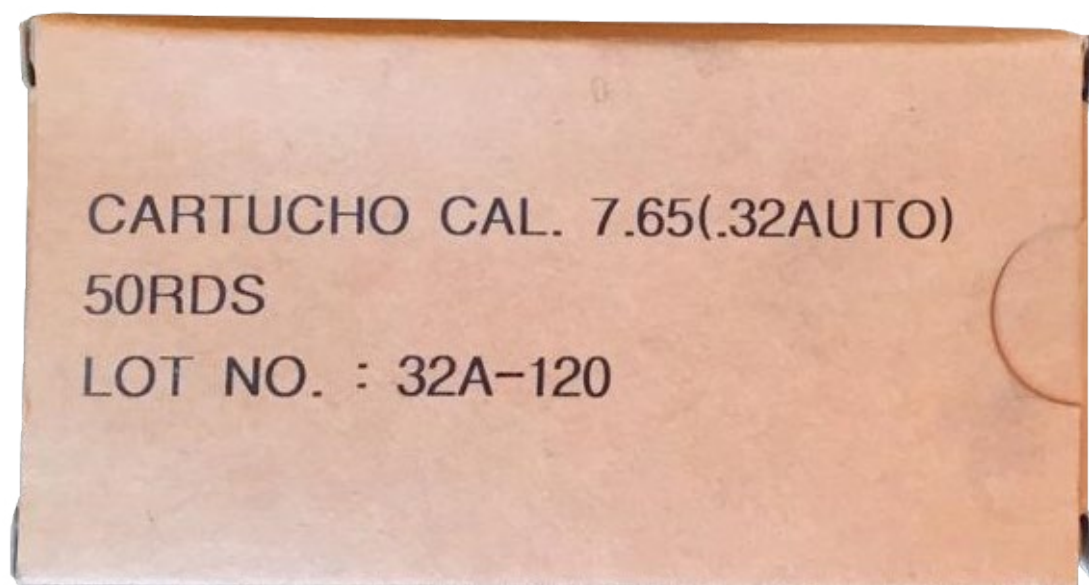


Figure 4.15 A 50-round cardboard box of .32 ACP cartridges produced by CAVIM (source: ARES).

### .40 S&W Cartridges

A majority of the .40 S&W cartridges for sale in Caracas were American in origin, accounting for three of the six sales and comprising 125 of the 275 rounds offered. Russian, Mexican, and Italian ammunition were each featured in individual sales of 50 rounds each. FMJ and JHP were the only .40 S&W projectile variants recorded. .40 S&W remains a popular sports shooting calibre in Venezuela, although sources indicated that it is increasingly difficult to get hold of. CAVIM is known to sell .40 S&W cartridges, although it is not clear whether they have ever manufactured the calibre.

### .380 ACP Cartridges

.380 ACP cartridges account for only 250 rounds in total, spread across five sales of 50 cartridges each. CAVIM produces .380 ACP, but only one offering of an estimated 50 rounds of FMJ was documented in the dataset. These cartridges bore the 'star-line-star' headstamp with the calibre marking "38 AUTO". CAVIM's specifications for .380 ACP cartridges are given in *Table 4.5, below*. A majority of the .380 ACP rounds for sale on the illicit market were manufactured in the US, comprising 150 of the 250 rounds recorded. The remaining 50 cartridges were produced in Hungary by MFS 2000 (see *Figure 4.16*). Most of the cartridges for sale were of the FMJ type, but 50 of the American examples were Remington 88 gr JHP rounds.

**Table 4.5 — CAVIM Specifications for .380 ACP Cartridges**

| Type | Cartridge length     | Cartridge weight  | Projectile weight | Velocity ( $V_{10}$ ) | Energy ( $E_{10}$ )      |
|------|----------------------|-------------------|-------------------|-----------------------|--------------------------|
| FMJ  | 25.0 mm<br>(0.98 in) | 9.6 g<br>(148 gr) | 6.0 g<br>(93 gr)  | 250 m/s<br>(820 fps)  | 18.8 kg/m<br>(136 ft-lb) |

Sources: CAVIM, c. 1980s.



**Figure 4.16** U.S. CCI Blazer and Hungarian MFS 2000 .380 ACP cartridges, both packaged in 50-round cardboard boxes.

## .45 ACP Cartridges

.45 ACP is one of the less-common pistol calibre cartridges available on the illicit market in Caracas. Firearms chambered for the cartridge are likewise rare in Caracas; they accounted for just 12 of a total 535 firearms documented on the illicit market in a 2020 ARES study (Pérez, Ferguson & Jenzen-Jones, 2020). Only four sales of .45 ACP ammunition were recorded, accounting for a total of 126 rounds, and only FMJ and LRN types were observed. 125 of the cartridges were manufactured in the United States, with 100 from Winchester and 25 from Remington. A single CAVIM FMJ cartridge was documented on the illicit market with the headstamp “CAVIM .45 AUTO”. CAVIM’s specifications for .45 ACP cartridges are given in *Table 4.6*, below.



**Figure 4.17** A CAVIM .45 ACP cartridge (source: ARES).

**Table 4.6 — CAVIM Specifications for .45 ACP Cartridges**

| Type | Cartridge length     | Cartridge weight   | Projectile weight  | Velocity ( $V_{10}$ ) | Energy ( $E_{10}$ )       |
|------|----------------------|--------------------|--------------------|-----------------------|---------------------------|
| FMJ  | 32.3 mm<br>(1.27 in) | 22.0 g<br>(340 gr) | 14.9 g<br>(230 gr) | 245 m/s<br>(804 fps)  | 58.57 kg/m<br>(424 ft-lb) |

Sources: CAVIM, c. 1980s.

## Shotgun Cartridges

23 sales of shotgun cartridges (‘shotshells’) totalling 1,728 rounds were documented. 12-gauge cartridges were the only calibre of shotgun ammunition documented, with the exception of a single box of CAVIM ‘PREMIUM’ 16-gauge shotshells (marked “CAL. 16”). Eight of the trades recorded were of CAVIM shotshells, including the largest sale recorded, in which the seller offered 1,000 rounds. CAVIM has long made shotgun cartridges—most recently under its ‘Premium’ brand—and continues to produce a variety of loadings today. Birdshot sizes 9, 8, 7 ½, 7, 6, and 4; number 3 and number 4 buckshot; and riot control cartridges were all listed in a 2017 catalogue (CAVIM, 2017; see *Figure 2.2*). Numbers 6 & 7 ½ birdshot (see *Figures 4.18 & 4.19*) and number 3 buckshot (see *Figure 4.20*) were the most common types amongst the trades documented in the dataset. Two boxes of CAVIM 12-gauge no. 4 birdshot cartridges produced in the 1980s were also documented. These feature a unitary cartridge case construction, with the body of the case and the case head formed as a single polymer component. All of the recent-production CAVIM shotshells seen by the authors featured “CHEDDITE” headstamps—rather than “CAVIM” as seen on some earlier examples—with production and load information being printed on the plastic hull by CAVIM at the time of manufacture (see *Figures 4.19 & 4.20*).<sup>24</sup> A single black-hulled cartridge with magenta sealant at the primer annulus, described by the seller as being a CAVIM design “issued to special units”, was also documented (see *Figure 4.21*). It features a common ‘12 12’ headstamp. No further details are known.

Six sales were recorded for shotshells from Italy and the United states, for a total of 175 and 167 cartridges, respectively. The Italian-origin cartridges included examples from Cheddite, Clever, Fiocchi, and Martignoni. The U.S. cartridges were comprised of Winchester and Federal Ammunition products, including a five-round box of Federal 1 oz Super Slug cartridges. A source in Venezuela told ARES that slugs are in very high demand for home defence, and are generally hard to obtain. Two sales of Spanish shotshells were also recorded, including ten rounds of SAGA 00 buckshot. A single box of 25 cartridges from unknown manufacturer ‘Redstar’ were also documented.

<sup>24</sup> Shotgun cartridges are particularly difficult to identify from headstamps alone. A range of third-party producers supply complete cases (or components such as hulls and brass heads) to the manufacturers of complete cartridges. It is these third-party producers who often apply the markings to shotshell components, and sell the marked parts to a number of cartridge producers for assembly (Jenzen-Jones, 2018).



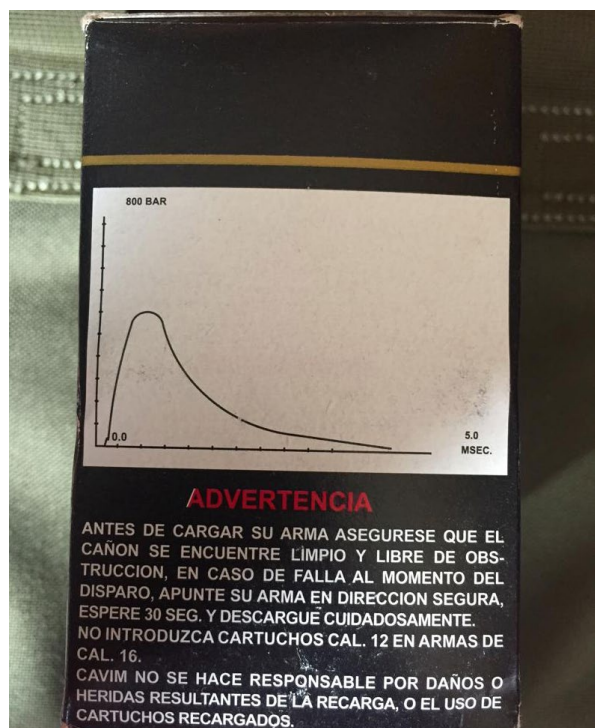
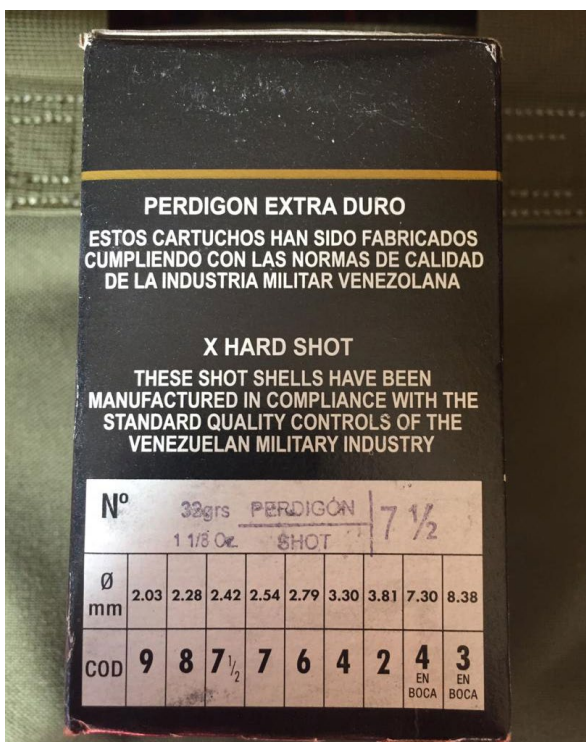


Figure 4.18 A box of 25 CAVIM Premium #7 1/2 birdshot cartridges (source: ARES).





**Figure 4.19** CAVIM Premium #7 ½ birdshot cartridges featuring “CHEDDITE” headstamps. Each contains 32 g of shot (source: ARES).



**Figure 4.20** A box of 25 CAVIM Premium #3 buckshot cartridges. Each cartridge contains nine pellets weighing a total of 30 g (source: ARES).



**Figure 4.21** A single shotshell, described by the seller as being produced by CAVIM and issued to ‘special units’ (source: ARES CONMAT Database).

### 5.56 × 45 mm Cartridges

The popularity of 5.56 × 45 mm rifles in Venezuela is documented in the ARES companion piece to this report, which examined the online trade in illicit firearms in the country (Pérez, Ferguson & Jenzen-Jones, 2020). Although only nine trades of 5.56 mm or .223 Winchester ammunition were recorded, these totalled 2,350 rounds—making the cartridge the third-most common by total volume in the dataset. Most 5.56 cartridges offered for sale were Russian in origin; 6 sales of Wolf and Tula Cartridge Works ammunition accounted for 2,250 rounds in total. Sales of Russian 5.56 included all of the notably large sales, including sales of 800, 600, 400, and 390 rounds. ARES also recorded the sale of 20 Russian Wolf JHP rounds. The rest of the ammunition was manufactured in the United States, and included the sale of 20 Winchester M855 Penetrator rounds marked “FOR LAW ENFORCEMENT USE ONLY”.

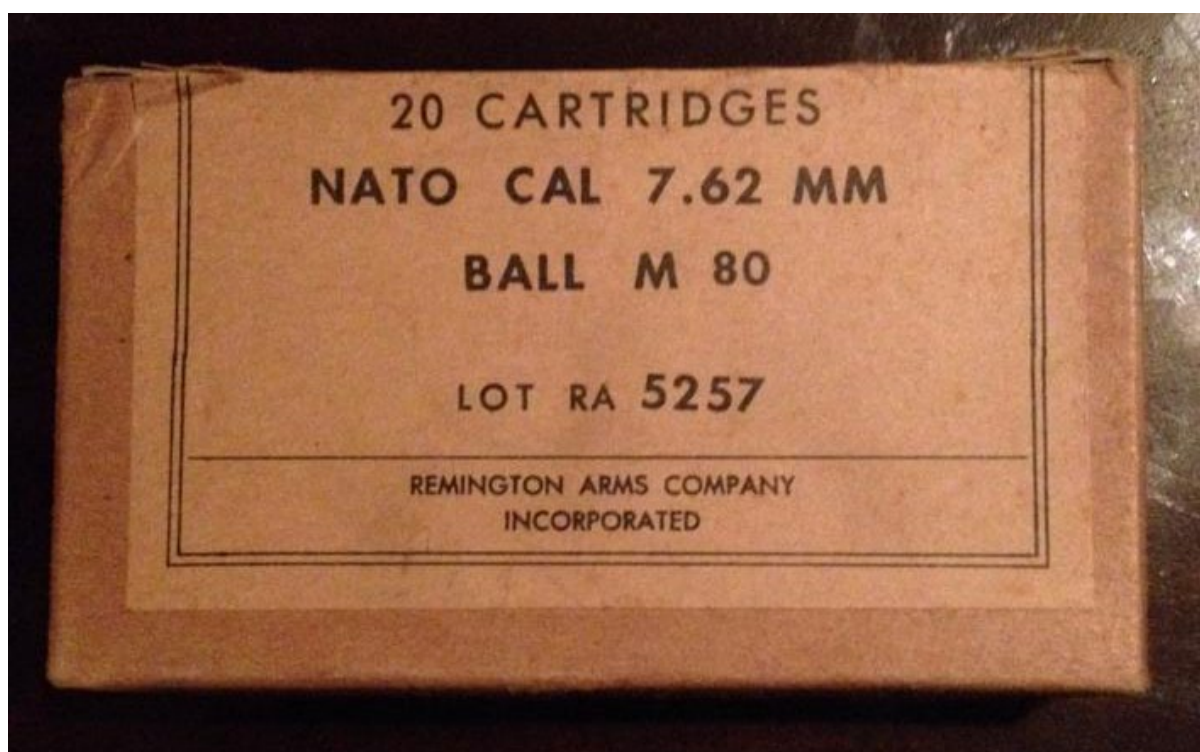


**Figure 4.22** A large lot of Tula Cartridge Works ‘TulAmmo’ and Wolf Military Classic .223 Remington cartridges offered for sale (source: ARES CONMAT Database).



### 7.62 × 51 mm & 7.62 × 39 mm Cartridges

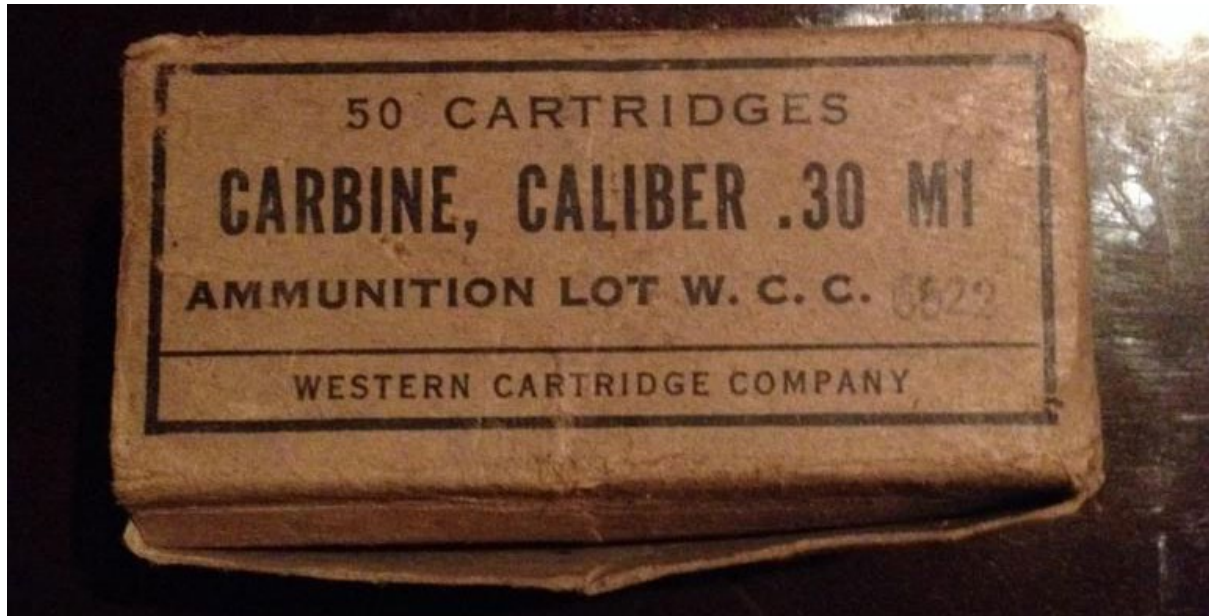
Only one small trade was recorded for each of 7.62 × 51 mm and 7.62 × 39 mm cartridges. The 7.62 NATO ammunition consisted of a single twenty-round box of M80 ball cartridges produced by Remington (see *Figure 4.22*). The 7.62 × 39 mm cartridges were produced in China, and of typical construction with a GMCS cartridge case and projectile jacket, and red sealant at the case mouth. The lack of 7.62 × 51 mm and 7.62 × 39 mm on the grey market is noteworthy. This be something of a surprise, given the fact that the 7.62 × 51 mm FAL and the 7.62 × 39 mm AK-103 have been the last two standard issue rifles of the Venezuelan armed forces. A few factors might explain the absence of these cartridges from the civilian market: for a number of years, 7.62 × 51 mm was considered a military calibre and not legal to own by civilians, and whilst 7.62 × 51 mm (and .308 Winchester) remained a popular cartridge among hunters, there is a possibility that the majority of these rifles have not come up for sale in the area of study (Caracas) as hunting is mostly conducted in the rural areas of the country. Similarly, concealable weapons (i.e. primarily handguns) are favoured by many of the participants in the illicit online markets. The 7.62 × 39 mm cartridge type was virtually non-existent in the country before the adoption of the AK-103 in 2005. A confidential source noted that the essentially the only 7.62 × 39 mm rifles present in Venezuela before the adoption of the AK-103 were AK variants confiscated from non-state armed actors, primarily Colombian guerrillas. The lack of rifles in the civilian population in this chambering may explain the lack of offerings of 7.62 × 39 mm in the grey market (Pérez, Ferguson & Jenzen-Jones, 2020).



**Figure 4.23** A twenty-round box of 7.62 × 51 mm M80 ball (FMJ) cartridges produced by Remington (lot number RA 5257) (source: ARES CONMAT Database).

### Other Cartridges

Other calibres documented include 5.7 × 28 mm, .22 WMR (5.6 × 27R mm), .25 ACP (6.35 × 16SR mm), .30 Luger (7.65 × 21.5 mm), .220 Swift (5.56 × 56SR mm), .243 Winchester (6 × 52 mm), and .30 Carbine (7.62 × 33 mm). With the exception of the 5.7 mm ammunition (produced by FN Herstal, in Belgium), all of these cartridges were produced in the United States. Most of these were offered as single boxes, including a single box of Western Cartridge Company .30 Carbine cartridges (see *Figure 4.24*). Two boxes of .220 Swift, each containing twenty cartridges, were offered for sale (see *Figure 4.25*).



**Figure 4.24** A fifty-round box of .30 Carbine ball (FMJ) cartridges produced by the Western Cartridge Company (lot number W.C.C. 6522) (source: ARES CONMAT Database).



**Figure 4.25** Two twenty-round boxes of .220 Swift JSP cartridges produced by Remington and the Western Cartridge Company. These were offered for sale as a lot (source: ARES CONMAT Database).

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