

# ARCHIVED REPORT

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## Small Arms Ammunition (International)

### Outlook

- Serial production ongoing, primarily for domestic requirements
- Worldwide acceptance of NATO-standard ammunition continues to grow, with non-U.S. and non-European players gradually increasing their share of the international market
- We expect production from all non-U.S. and non-European sources to average nearly 7 billion rounds annually through 2019

### Orientation

**Description.** Ammunition for military small arms, 5.5x15mm to 14.5x114mm.

**Sponsor.** Both individual contractors and governments sponsor the development of small arms ammunition.

**Licensees.** Due to the unique nature of this market, players rarely, if ever, make licensing arrangements.

**Status.** Development through serial production.

**Total Produced.** Through 2009, we estimate the various non-U.S. and non-European contractors

produced more than 164 billion rounds of small arms ammunition since 1980 inclusive.

**Application.** Ammunition for military small arms – including side arms (pistols), submachine guns, shoulder arms (rifles and assault weapons), and crew-served machine guns.

**Price Range.** In 2010 U.S. dollars, the unit prices of new-production non-U.S. and non-European small arms cartridges range from \$0.08 for the 5.5x15mm (.22 long rifle) cartridge to \$2.47 for the 14.5x114mm cartridge.

### Contractors

#### Prime

<b>China North Industries Corp (NORINCO)</b>	<a href="http://www.norinco.com">http://www.norinco.com</a> , 12A Guang An Men Nan Jie, PO Box 2932, Beijing, 100053 China, Tel: + 86 10 6352 9988, Fax: + 86 10 6354 0398, Email: <a href="mailto:norinco@norinco.com.cn">norinco@norinco.com.cn</a> , Prime
<b>Companhia Brasileira de Cartuchos, CBC Magtech</b>	<a href="http://www.cbc.com.br">http://www.cbc.com.br</a> , Av. Humberto de Campos 3220, Guapituba, 09426 000 Ribeirao Pires, Brazil, Tel: + 55 11 2139 8219, Fax: + 55 11 2139 8323, Email: <a href="mailto:export@cbc.com.br">export@cbc.com.br</a> , Prime
<b>Denel (Pty) Ltd</b>	<a href="http://www.denel.co.za">http://www.denel.co.za</a> , Nellmapius Dr, Irene, 0046 South Africa, Tel: + 27 12 671 2700, Fax: + 27 12 671 2751, Email: <a href="mailto:marketing@denel.co.za">marketing@denel.co.za</a> , Prime
<b>General Dynamics Ordnance and Tactical Systems, SNC Technologies Inc</b>	<a href="http://www.gd.com">http://www.gd.com</a> , 5 Montee des Arsenaux, Le Gardeur, J5Z 2P4 Quebec, Canada, Tel: + 1 (450) 581-3080, Fax: + 1 (450) 581-0913, Email: <a href="mailto:info@snctec.com">info@snctec.com</a> , Prime

## Small Arms Ammunition (International)

<b>Israel Military Industries Ltd (IMI)</b>	<a href="http://www.imi-israel.com">http://www.imi-israel.com</a> , PO Box 1044, Bialik St 64, Ramat Hasharon, 47100 Israel, Tel: + 972 3 548 5617, Fax: + 972 3 548 6125, Email: <a href="mailto:imimrktg@imi-israel.com">imimrktg@imi-israel.com</a> , Prime
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## Small Arms Ammunition (International)

<b>Ordnance Factories Organization of India, Ordnance Factory Board - Export Division</b>	<a href="http://ofbindia.gov.in/index.php">http://ofbindia.gov.in/index.php</a> , 10 A, S K Bose Rd, Kolkata, 700 001 India, Tel: + 91 33 2248 1209, Fax: + 91 33 2248 9744, Email: ofbtrade@vsnl.net, Prime
<b>Pakistan Ordnance Factories</b>	<a href="http://www.pof.gov.pk">http://www.pof.gov.pk</a> , Wah Cannt, 47010 Pakistan, Tel: + 92 51 931 4101, Fax: + 92 596 931 4058, Email: exports@pof.gov.pk, Prime
<b>Poongsan Defense</b>	<a href="http://www.poongsan.co.kr">http://www.poongsan.co.kr</a> , Keuk-Dong Bldg, 12F, 60-1 3-ga Chungmu-Ro, Seoul, Korea, South, Tel: + 82 2 3406 5114, Fax: + 82 2 3406 5400, Email: jwkang@poongsan.co.kr, Prime
<b>Singapore Technologies Kinetics Ltd</b>	<a href="http://www.stengg.com">http://www.stengg.com</a> , 249 Jalan Boon Lay, Singapore, 619523 Singapore, Tel: + 65 6473 6311, Fax: + 65 6471 0662, Email: comms.kinetics@stengg.com, Prime
<b>Thales Australia</b>	<a href="http://www.thalesgroup.com/australia">http://www.thalesgroup.com/australia</a> , Locked Bag 3000, Potts Point, 2011 New South Wales, Australia, Tel: + 61 2 9562 3333, Email: communications@thalesgroup.com, Prime

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Contractors are invited to submit updated information to Editor, International Contractors, Forecast International, 22 Commerce Road, Newtown, CT 06470, USA; [rich.pettibone@forecast1.com](mailto:rich.pettibone@forecast1.com)

## Technical Data

### Small Arms Cartridge Designations

**Note:** *Given the wide availability of small arms ammunition of all types worldwide – and in an effort to avoid redundancy and confusion – we list commonly used military ammunition in this report by caliber, and not by specific manufacturer.*

**Cartridge Caliber**

5.5x15mm

**Common Designation**

.22 Long Rifle

**Producing Country**

Argentina  
Australia  
Brazil  
Canada  
Mexico  
People's Republic of China  
Philippines  
Republic of Korea  
Republic of South Africa

5.56x45mm NATO

.223 Remington  
M193, M855 (SS109)

Argentina  
Australia  
Brazil  
Cambodia  
Canada  
Chile  
Republic of China  
Colombia  
Dominican Republic  
Egypt  
Guatemala  
India  
Indonesia  
Iran  
Israel  
Japan  
Malaysia  
Mexico  
Morocco  
Myanmar  
New Zealand

## Small Arms Ammunition (International)

<u>Cartridge Caliber</u>	<u>Common Designation</u>	<u>Producing Country</u>
		Nigeria
		Pakistan
		People's Republic of China
		Peru
		Philippines
		Republic of Korea
		Republic of South Africa
		Saudi Arabia
		Singapore
		Thailand
		United Arab Emirates
		Venezuela
5.56x45mm	SS107	India
		Israel
		Republic of South Africa
5.6x35mm	.22 Hornet	Brazil
5.68x26.72mm	.22 Winchester Magnum	Republic of South Africa
5.7x43mm	.222 Remington	Israel
		Philippines
		Republic of Korea
6x52mm	.243 Winchester	Brazil
		Israel
		Republic of Korea
		Republic of South Africa
6.35x16mm	.25 Automatic Colt Pistol (ACP)	Brazil
		Colombia
		Mexico
		Republic of Korea
		Republic of South Africa
7x57mm	7mm Mauser, 7mm Spanish Mauser, M1893	Brazil
		Chile
		Colombia
		Republic of Korea
		Republic of South Africa
7x63mm	7mm Remington Magnum	Republic of Korea
		Republic of South Africa
7.5x54mm	7.5mm French, 7.5mm MAS	Burkina Faso
		Cambodia
		Cameroon
		Morocco
		Vietnam
		Dominican Republic
		Iran
		Republic of South Africa
7.62x25mm	7.62mm Tokarev	Thailand
		Cuba
		Democratic People's Republic of Korea
		People's Republic of China
7.62x33mm	7.62mm Regana, Modelo 68	Argentina
7.62x33mm	.30 Carbine	Bolivia
		Brazil
		Burkina Faso
		Colombia
		Cuba
		Dominican Republic
		Ecuador
		Guatemala
		Iran
		Israel
		Japan
		Mexico

Small Arms Ammunition (International)

<u>Cartridge Caliber</u>	<u>Common Designation</u>	<u>Producing Country</u>
7.62x39mm	7.62mm Soviet, M1943	Morocco
		Philippines
		Republic of Korea
		Republic of South Africa
		Thailand
		Venezuela
		Vietnam
		Brazil
		Cambodia
		Cameroon
		Cuba
		Democratic People's Republic of Korea
		Egypt
		India
		Indonesia
		Iran
		Israel
		Morocco
		Pakistan
		People's Republic of China
Peru		
Republic of Korea		
Republic of South Africa		
Singapore		
Sudan		
Syria		
Vietnam		
Zimbabwe		
7.62x51mm NATO	.308 Winchester	Argentina
		Australia
		Bolivia
		Brazil
		Cameroon
		Canada
		Chile
		Colombia
		Cuba
		Dominican Republic
		Ecuador
		Egypt
		India
		Indonesia
		Iran
		Israel
		Japan
		Malaysia
		Morocco
		Myanmar
		Nepal
		New Zealand
		Nigeria
		Pakistan
		Paraguay
		Peru
		Philippines
		Republic of China
		Republic of Korea
		Republic of South Africa
Saudi Arabia		
Singapore		
Sudan		

## Small Arms Ammunition (International)

<u>Cartridge Caliber</u>	<u>Common Designation</u>	<u>Producing Country</u>
		Thailand
		United Arab Emirates (Abu Dhabi)
		Uruguay
		Venezuela
7.62x54mm	7.62mm Mosin-Nagant	Zimbabwe
		Cuba
		Egypt
		Iran
		People's Republic of China
		Syria
		Vietnam
7.62x63mm	.30-06 Springfield, .30 Browning, M1906	Argentina
		Brazil
		Canada
		Colombia
		Cuba
		Dominican Republic
		Indonesia
		Iran
		Israel
		Mexico
		Pakistan
		Philippines
		Republic of Korea
		Republic of South Africa
		Venezuela
7.65x17mm	7.65mm Browning, .32 Automatic Colt Pistol	Brazil
		Chile
		Dominican Republic
		Iran
		Mexico
		Republic of Korea
		Republic of South Africa
		Thailand
7.65x19mm	7.65mm Longue, 7.65 MAS	Burkina Faso
		Morocco
7.65x53mm	7.65mm Argentine Mauser, 7.65 Turkish Mauser	Argentina
		Brazil
		Chile
		Colombia
		Peru
7.7x56mm	.303 Lee-Enfield, .303 British	Canada
		Egypt
		India
		Israel
		Myanmar
		Pakistan
		Republic of South Africa
		Zimbabwe
7.82x66mm	.300 Winchester Magnum	Canada
		Republic of Korea
		Republic of South Africa
7.92x57mm	8mm Mauser	Argentina
		Republic of South Africa
8x50mm	8mm French, 8mm MAS	Burkina Faso
		Cameroon
		Sudan
9x17mm	9mm Short, .380 Automatic Colt Pistol	Argentina
		Brazil
		Chile
		Egypt

Small Arms Ammunition (International)

<u>Cartridge Caliber</u>	<u>Common Designation</u>	<u>Producing Country</u>
9x18mm	9mm Makarov, Type 59	Israel
		Mexico
		Pakistan
		Republic of Korea
		Republic of South Africa
		Zimbabwe
		Cuba
		Democratic People's Republic of Korea
		Egypt
		Iran
		Pakistan
		People's Republic of China
		Syria
9x19mm	9mm Parabellum, 9mm Luger	Vietnam
		Argentina
		Australia
		Bolivia
		Brazil
		Cambodia
		Cameroon
		Canada
		Chile
		Colombia
		Cuba
		Dominican Republic
		Ecuador
		Egypt
		Guatemala
		India
		Indonesia
		Iran
		Israel
		Malaysia
		Mexico
		Morocco
		Myanmar
		Nepal
		New Zealand
		Nigeria
		Pakistan
		Paraguay
		People's Republic of China
		Peru
		Republic of Korea
		Republic of South Africa
		Saudi Arabia
Singapore		
Thailand		
United Arab Emirates (Abu Dhabi)		
Uruguay		
Venezuela		
Vietnam		
Zimbabwe		
9x21mm	9mm IMI	Indonesia
		Israel
9x23mm	.38 Automatic Colt Pistol	Brazil
		Chile
		Colombia
		Mexico
		Venezuela

## Small Arms Ammunition (International)

<u>Cartridge Caliber</u>	<u>Common Designation</u>	<u>Producing Country</u>
9x23mm	.38 Super Auto	Brazil Chile Colombia Mexico Republic of Korea Republic of South Africa
9x29mm	.38 Smith & Wesson Special	Argentina Brazil Chile Dominican Republic Indonesia Iran Israel Japan Malaysia Mexico Philippines Republic of Korea Republic of South Africa Thailand
9x31mm	.380 British, .38/200	India Republic of South Africa
9x33mm	.357 Smith & Wesson Magnum	Brazil Israel Mexico Republic of Korea Republic of South Africa Thailand
10x21mm	.40 Smith & Wesson	Israel Republic of Korea
10x22mm	.41 Action Express	Israel
10x25mm	10mm Bren Ten	Brazil Republic of Korea
10x33mm	.41 Remington Magnum	Republic of Korea
11x29mm	.44 Smith & Wesson Special	Republic of Korea
11x33mm	.44 Remington Magnum	Brazil Israel Republic of Korea
11.43x23mm	.45 Automatic Colt Pistol	Republic of South Africa Argentina Bolivia Brazil Canada Colombia Cuba Dominican Republic Iran Israel Japan Mexico Paraguay Philippines Republic of China Republic of Korea Republic of South Africa Singapore Thailand Venezuela
11.5x23mm	.45 Auto Rim	Brazil
11.5x33mm	.45 Colt, .45 Long Colt	Republic of Korea Mexico



## Small Arms Ammunition (International)

<u>Cartridge Caliber</u>	<u>Common Designation</u>	<u>Producing Country</u>
11.5x19mm	.455 Webley Mark VI	India Republic of South Africa
12.7x33mm	.50 Action Express	Israel
12.7x77mm	.50 Spotting Rifle	Brazil India Pakistan Republic of Korea Republic of South Africa
12.7x99mm	.50 Browning	Argentina Australia Brazil Canada Chile Colombia Dominican Republic Egypt India Indonesia Iran Israel Japan Malaysia Mexico Morocco Nepal New Zealand Pakistan People's Republic of China Philippines Republic of China Republic of Korea Republic of South Africa Saudi Arabia Singapore Thailand United Arab Emirates
12.7x107mm	12.7mm Soviet, 12.7 DShK, Type 54	Cuba Egypt Iran Israel Pakistan People's Republic of China Syria
14.5x114mm	14.5mm Soviet, 14.5 KPV, Type 56	Vietnam Cuba Egypt Iran Pakistan People's Republic of China Syria

## Variants/Upgrades

**Variants.** Not generally applicable. Upgraded rounds usually carry new designations.

**Modernization and Retrofit Overview.** Not applicable. Contractors integrate improvements as production cut-ins.

## Small Arms Ammunition (International)

## Program Review

**Background.** While Europe has remained the center of small arms development since the 15th century, the rest of the world has never been far behind. Indeed, the rest of the world still tends to follow Europe's lead in the field of small arms development. Witness the growing worldwide adoption of NATO-standard small arms ammunition.

For the purposes of our discussion, we define small arms as the basic cartridge-firing individual and crew-served weapons of the infantry, as follows:

- Side arms (pistols), firing pistol-caliber ammunition
- Submachine guns (machine pistols), firing pistol-caliber ammunition
- Battle carbines, firing intermediate-caliber ammunition
- Battle rifles, firing full-caliber rifle ammunition

In addition, infantry small arms encompass crew-served machine guns, as follows:

- Light machine guns, firing either intermediate-caliber or full-caliber ammunition
- Medium (general-purpose) machine guns, firing full-caliber ammunition
- Heavy machine guns, firing heavy (12.7mm and above) ammunition

The number of non-U.S. and non-European players producing small arms ammunition continues to grow as nations seek to become self-sufficient for political and strategic reasons.

### ***Leveraging Capabilities***

Many non-U.S. and non-European players can take advantage of economies of labor and increasingly sophisticated industrial bases to produce highly competitive ammunition products. Importation of American or European munitions leads to licensed (and unlicensed) production which, in turn, serves to establish the technical capability (manufacturing infrastructure and skilled personnel) for indigenous development and production.

At least 80 non-U.S. and non-European contractors and government organizations are currently involved in the international small arms ammunition market. In this report, we briefly review only the most active non-U.S. and non-European players so as to present a cross-section of the entire market.

## **AFRICA**

### **Republic of South Africa**

*Denel (Pty) Ltd.* In 1992, the state-owned ARMSCOR organization reorganized, transferring its manufacturing companies to Denel Ltd. This company continues to supply all of South Africa's small arms ammunition requirements.

Under the auspices of Denel, Pretoria Metal Pressings produces 5.56x45mm NATO (.223 Remington), 7.62x51mm NATO (.308 Winchester), 7.7x56mm (.303 British), 9x19mm Parabellum, and 12.7x99mm (.50 caliber) cartridges; other types are available per demand. In addition, New Generation Ammunition Ltd provides a variety of handgun cartridges for military, police, internal security, and private use.

### ***Seeking Export Opportunities***

Following the lifting of United Nations sanctions in 1994, South Africa has found its military products to be much easier to export. Since 1994, Denel has secured several regional and international sales, including a 2002 sale of 7.62x51mm NATO (.308 Winchester) ammunition to an unspecified 'South Asian' nation.

## **ASIA**

### **India**

*Ordnance Factories Organization of India.* As a component of India's Ministry of Defence, this organization operates a large British-designed ammunition industry, based on the old Ordnance Factories organization of pre-independence India. Domestic ammunition production fills the large Indian requirements, and accommodates export sales as well. India has exported small arms ammunition to Bangladesh, Sri Lanka, and Myanmar. There are also unconfirmed reports of other sales to Africa.

### ***Production for INSAS***

With the long-delayed advent of the new Indian Small Arms System, production of the associated 5.56x45mm SS107 round will likely rise dramatically. The Indian Ordnance Board initially delayed the import of the required production machinery for the SS107 cartridge. The SS107 is not a NATO-standard cartridge, as its case is slightly longer than the M193 or SS109. In 1997, Israel Military Industries (IMI) secured a contract worth \$13.88 million to supply 50 million SS109 cartridges (for which the INSAS weapon is also compatible), with an option for an additional 50 million rounds.

India still plans to manufacture the SS107 round. With the receipt of the necessary production machinery,

## Small Arms Ammunition (International)

production of the SS107 is ramping up; production should remain at a fairly high level throughout the forecast period.

### Pakistan

*Pakistan Ordnance Factories.* As a component of the Pakistan Ministry of Defense, the state-owned Pakistan Ordnance Factories employed around 45,000 people in 2000, making it the largest single industrial organization in Pakistan. The organization satisfies all of Pakistan's small arms ammunition requirements; Pakistan also offers small arms ammunition on the international market. The manufacturing facility at Wah produces both NATO-standard and Russian-pattern ammunition.

### ***Expanding Customer Base***

Since 1979, the Persian Gulf region has been a receptive market for Pakistan's ammunition in all calibers. Pakistan has also reportedly secured sales to Southeast Asia (Thailand), sub-Saharan Africa, Saudi Arabia, South America, and even the United Kingdom. Since late 1999, Pakistani production of small arms ammunition has proceeded at significantly increased rates. Pakistan Ordnance Factories has also exported ammunition manufacturing technology to Malaysia and Saudi Arabia.

### People's Republic of China

*China North Industries Corporation (NORINCO).* This organization acts as the umbrella activity and international marketing conduit for all Chinese state-owned military production facilities. Ammunition production specifically involves eight facilities (identified simply as Plants 11, 31, 41, 61, 71, 81, 321, and 661; these numbers appear on the cartridge case head-stamp).

### ***Massive Capability***

Unconfirmed reports suggest small arms ammunition production since 1997 has exceeded 600 million per year; production has reportedly surged to more than one billion rounds per year since 1999 to meet two large export orders. In addition to meeting the huge domestic People's Liberation Army (PLA) requirement, NORINCO has widely exported small arms ammunition. NORINCO ammunition surfaced in the Balkans; Iran and several East African nations have also been customers.

### Republic of Korea

*Poongsan Defense.* Since the 1950s, the Republic of Korea has been a major arms producer for the Pacific Rim.

### ***PMC Still a Major Player***

The ROK has also filled a number of U.S. contracts. Indeed, Poongsan ammunition – still available under the PMC (Poongsan Metal Corporation) brand name despite reports of the brand's demise – is quite common in the United States for both military and civilian use. Other export customers for Korean small arms ammunition include Australia, Bangladesh, Indonesia, Turkey, and other Asian nations.

As a result of the ROK Army's wholesale adoption of the indigenous 5.56mm K1A and K2 battle carbines, Korean industry has become heavily involved in the production of 5.56x45mm NATO (.223 Remington) ammunition for ROK Army procurement.

### Republic of Singapore

*Singapore Technologies Kinetics Ltd.* Known as Chartered Industries of Singapore until 2000, this firm has managed to make extensive use of the international market. This multifaceted organization offers a wide range of small arms ammunition in both NATO-standard and Russian patterns.

### ***Growing Market Share***

In addition to providing small arms ammunition for Singapore's modern and well-structured armed forces, ST-K also exports small arms ammunition worldwide. Customers include New Zealand, Thailand, and the United Arab Emirates; unconfirmed reports also indicate export sales to Cambodia, Myanmar, and two African nations.

### **AUSTRALIA/NEW ZEALAND**

#### Australia

*Thales Australia.* The Australian Department of Defence Support coordinates the functions of eight major facilities and several smaller units in the production of all types of ammunition. In August 1999, the formerly government-owned ADI Ltd (Australian Defence Industries) became a component of the Transfield and Thomson-CSF (now Thales) joint venture team. The contractor operates a number of these formerly government-owned facilities.

In October 2006, the Thales Group (Neuilly-sur-Seine, France) acquired ADI Ltd. The Australian contractor now operates as Thales Australia.

### ***Heavy Aussie Demand***

Thales Australia produces a full line of NATO-standard small arms ammunition types for domestic use and for export. With the Australian Army's adoption of the

## Small Arms Ammunition (International)

5.56mm Steyr AUG battle carbine (as the F88), production of 5.56x45mm NATO (.223 Remington) ammunition has been especially heavy. In 1998, (then) ADI secured a contract worth \$6.16 million from the Australian Department of Defence for 5.56x45mm NATO ammunition in both standard and linked form.

Small arms ammunition production primarily occurs at the Footscray Ammunition Factory, located in Victoria. Olin Australia also produces 5.5x15mm (.22 Long Rifle) training rounds. There has been a moderate level of regional export of this ammunition.

### MIDDLE EAST

#### Israel

*Israel Military Industries Ltd (IMI)*. This firm serves as the prime Israel Defense Forces (IDF) contractor for small arms ammunition; IMI also offers its products for export.

#### *Middle Eastern Powerhouse*

Although IMI has never disclosed its export customers, research indicates IMI has secured sales to Latin America (possibly Mexico) and sub-Saharan Africa. In 1997, India ordered an initial 50 million 5.56x45mm NATO (.223 Remington) SS109 rounds; in 1999, the United Kingdom ordered more than 9 million 9x19mm Parabellum rounds for delivery in 2000 and 2001. Israel's domestic consumption of small arms ammunition is consistent with the maintenance of high force readiness levels and operational requirements.

In Israel, production of 5.56x45mm NATO (.223 Remington) ammunition did not come fully on-line until about 1978. Prior to that time, Israel purchased large quantities of small arms ammunition from the United States, through both government and commercial channels.

In addition to IMI, Kalia Israel Cartridge Company manufactures 5.56x45mm NATO (.223 Remington) ammunition in both the M193 and SS109 patterns. The state-owned ammunition factory in Tel Aviv manufactures several different patterns of small arms ammunition.

IMI recently established dealer-direct joint marketing programs in the U.S., the U.K., and Ireland for both government procurement and commercial sales.

### NORTH AMERICA

#### Canada

*SNC Technologies Inc.* Canada's small arms ammunition industry produces NATO-standard

ammunition and several 'obsolete' cartridge types for Canadian armed forces procurement and export sales.

The Canadian armed forces' adoption of the 5.56mm C7 (M16A2) battle carbine generated a significant demand for 5.56x45mm NATO (.223 Remington) ammunition. SNC Technologies (SNC Tech) and its Valcartier Industries subsidiary (acquired in 1991) are the primary Canadian sources of NATO-standard small arms ammunition in Canada. The high quality of SNC/Valcartier ammunition has resulted in an impressive level of exports, with the most recent reported sale being in mid-1999 to France.

#### *Under the GD Umbrella*

In February 2006, General Dynamics (Falls Church, Virginia) announced its acquisition of SNC Technologies. The Canadian contractor now operates as a component of the General Dynamics Ordnance and Tactical Systems division.

### SOUTH AMERICA

#### Brazil

*Companhia Brasileira de Cartuchos (CBC Magtech)*. Three main domestic ammunition manufacturers – Fabrica Nacional de Cartuchos e Municoes (Sao Paulo), CBC Magtech (Ribeirao Pires), and Fabrica Realongo (Rio de Janeiro) – meet the bulk of Brazil's small arms ammunition requirements, with sufficient spare capacity to permit extensive overseas marketing of small arms ammunition.

#### *Popular Export Line*

The figures released by the Brazilian government in the early 1990s indicate notable successes in the export of small arms ammunition. The U.S. non-military (commercial) market is a major recipient of both civil and military types of Brazilian small arms ammunition. Like South Korea's PMC, Brazil's CBC Magtech is a brand name quite familiar to sport shooters in the United States. CBC Magtech alone claims to produce more than 100 million rounds of small arms ammunition annually for export.

No fewer than 21 nations procure Brazilian-produced ammunition for military use. Brazilian manufacturers also export to Asia; CBC Magtech sold ammunition to Singapore through the 1970s. Brazil has also reportedly sold small arms ammunition to unspecified Middle Eastern nations (possibly Iran and pre-Operation Iraqi Freedom Iraq), and to unspecified nations in Central Africa.

## Small Arms Ammunition (International)

## Related News

**Russian Arms Plant Nears Completion in Venezuela** – The Russian ammunition plant under construction in Venezuela is expected to be completed by the end of the year.

Russia's Izhevsk Mechanical Plant signed a contract in 2007 licensing production of Kalashnikov rifles in Venezuela. Under the contract, Russia is building an assembly line for AK-103 rifles and 7.62mm ammunition in the Latin American country. Once completed, the plant will have the capacity to produce over 50 million rounds annually for Kalashnikov assault rifles. The production license will be valid for 10 years. (FI, 5/10)

**Uncertainty Surrounds South African Arms Exports** – A new report from South Africa's National Conventional Arms Control Committee (NCAA) shows that the value of the nation's arms export contracts soared from ZAR19.5 billion in 2008 to ZAR82.5 billion in 2009, reflecting an increase of ZAR63 billion. Members of Parliament are concerned about the report, submitted by committee chairman Justice Minister Jeff Radebe, as it fails to adequately explain what is behind the significant increase.

MP David Maynier, spokesman for the Democratic Alliance, has asked for more details about the new contracts. Asked Maynier, 'Does this mean a huge new conventional weapons export contract was signed in 2009? If so, what is the name of the importing country; what types of conventional weapons will be exported, and over what period will the weapons be exported?'

Last year, Maynier spoke out against what he called dodgy arms deals with certain countries, including rifles to Syria and ammunition to Zimbabwe. Radebe, however, has said that no weapons were exported to either of those countries last year. (*Business Day*, 4/10)

**New Zealand Army Selects Thales for Small Arms Ammunition Supply** – Thales is the leading supplier of munitions, propellants, ordnance, and related logistics to the Australian Defence Force. Chris Jenkins, chairman of Thales New Zealand, said the agreement represented a long-term commitment to working with the New Zealand Army.

'This is a great example of trans-Tasman benefits flowing from a world-class manufacturing capability developed in Australia, and reflects the commitment towards greater Anzac cooperation,' Jenkins said.

The multi-year contract will see Thales supply various types of Small Arms Ammunition to the New Zealand Army from the company's Benalla facility in Victoria. The propellant for the ammunition will be supplied from Thales's operation in Mulwala, NSW. (Thales, 1/10)

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## Funding

The various contractors, some of which are state-owned organizations, fund the development of small arms ammunition.

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## Timetable

The players we discuss in this report represent a cross-section of this expanding market. However, the prospects for technological innovation among non-U.S. and non-European players are somewhat less than with their U.S. and European counterparts, as the majority of non-U.S. and non-European players are primarily concerned with domestic self-sufficiency. Nevertheless, firms such as CBC Magtech, IML, and Singapore Technologies Kinetics have grown into legitimate players on the world stage. We can expect these players to keep pace with U.S. and European small arms technology throughout the forecast period.

## Small Arms Ammunition (International)

# Worldwide Distribution/Inventories

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Non-U.S. and non-European small arms ammunition is available worldwide.

## Forecast Rationale

Serial production of small arms ammunition by at least 80 non-U.S. and non-European manufacturers is ongoing for domestic procurement and export.

Nevertheless, the combined output of all non-U.S. and non-European manufacturers, which we expect will average nearly 7 billion rounds per year during the forecast period, still trails European small arms ammunition production by a margin of about 1 billion rounds annually. Yet, there are now well over twice as many non-U.S. and non-European players involved in the international small arms ammunition market as U.S. and European players combined.

### *Emerging International Players*

The majority of non-U.S. and non-European manufacturers remain focused on production for domestic procurement, with regional exports a secondary objective. However, a growing number of non-U.S. and non-European producers are emerging as legitimate players in the international small arms

ammunition market. Firms such as CBC Magtech, IMI and Singapore Technologies Kinetics have grown into legitimate players on the world stage. We can expect these players to keep pace with U.S. and European small arms technology throughout the forecast period.

With the general adoption of NATO-standard small arms ammunition worldwide, these emerging international players are now in direct competition with the established U.S. and European players for export sales.

### *No Unified Trend*

Non-U.S. and non-European small arms ammunition production trends will remain somewhat erratic throughout the forecast period, the result of differing procurement cycles and the diversity of nations and manufacturers. We expect a number of production spikes during the forecast period, reflecting the continuing influx of new players into the international market.

## Ten-Year Outlook

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Given the scarcity of open-source data regarding non-U.S. and non-European small arms ammunition production, developing a viable 10-year production outlook has become increasingly problematic. Nevertheless, the Forecast International Weapons Group expects the combined output of non-U.S. and non-European manufacturers to average nearly 7 billion rounds per year through 2019.

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