# INVESTIGATING CROSS-BORDER WEAPON TRANSFERS IN THE SAHEL

November 2016











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Front cover image: Type 56-1 assault rifle manufactured in 2011 and recovered after the attack on the Hôtel Byblos, Sévaré, 7 August 2015

Inside cover image: 122 mm 'GRAD' 9M22U rocket used in a P-IED attack near Ansongo, Mali, January 2015

# **CONTENTS**

ABBREVIATIONS AND ACRONYMS	4
PROJECT OVERVIEW	5
INTRODUCTION	6
METHODOLOGY	9
KEY FINDINGS	10
SECTION 1 WEAPON OUTFLOWS FROM LIBYA	11
BOX 1: POLISH KBK-AKMS RIFLES	12
COMMON SOURCES FOR DIFFERENT TRAFFICKING ROUTES	15
WEAPON OUTFLOWS FROM LIBYA TO MALI	17
LIBYAN OUTFLOWS TO THE CENTRAL AFRICAN REPUBLIC	21
LIBYAN OUTFLOWS TO AND VIA CHAD	22
LIBYAN WEAPON OUTFLOWS TO LEBANON AND SYRIA	23
SECTION 2 POST-2011 WEAPON INFLOWS TO LIBYA	25
SECTION 3 OTHER SOURCES OF ILLICIT WEAPONS IN THE SAHEL: STATE CRISIS AND STOCKPILE PROLIFERATION	29
BOX 2: NON-CONVENTIONAL ROCKET ATTACKS IN MALI, 2013–16	31
CÔTE D'IVOIRE	35
SECTION 4 MIDDLE EASTERN SMALL ARMS IN SAHELIAN ISLAMIST ATTACKS: AN EMERGING TREND	38
TRANSNATIONAL SUPPLY CHAINS	38
SMALL ARMS OF MIDDLE EASTERN PROVENANCE	39
CONCLUSION	43
ENDNOTES	45
REFERENCES	49

# ABBREVIATIONS AND ACRONYMS

**AQIM** 

al-Qaeda in the Islamic Maghreb

CAR

Conflict Armament Research

**FACA** 

Forces Armées Centrafricaines (Central African Republic Armed Forces)

**FAMa** 

Forces Armées Maliennes (Malian Armed Forces)

FAN

Forces Armées Nigeriennes (Nigerien Armed Forces)

**FSA** 

Free Syrian Army

**GATIA** 

Groupe autodéfense touareg Imghad et allies (Touareg Amghad and Allies' Self-Defence Group)

**GPMG** 

General-purpose machine gun

IED

Improvised explosive device

IS

Islamic State

**JEM** 

Justice and Equality Movement

LAF

Lebanese Armed Forces

**LRA** 

Lord's Resistance Army

**MANPADS** 

Man-portable air defence system

#### **MINUSCA**

United Nations Multidimensional Integrated Stabilization Mission in the Central African Republic

#### **MNLA**

Mouvement national de libération de l'Azawad (National Movement for Liberation of Azawad)

NATO

North Atlantic Treaty Organization

P-IED

Projected improvised explosive device

**PRB** 

Poudreries Réunies de Belgique (United Powder Factories of Belgium)

**PSSM** 

Physical security and stockpile management

**RPG** 

Rocket-propelled grenade (shoulder-launched rocket)

SLA-MM

Sudan Liberation Army-Minni Minnawi

UAE

**United Arab Emirates** 

UN

**United Nations** 

UNOCI

United Nations Operation in Côte d'Ivoire

**YPG** 

Yekîneyên Parastina Gel (People's Protection Units)

# **PROJECT OVERVIEW**

In 2015 and early 2016, Conflict Armament Research (CAR) conducted field investigations into the proliferation of Qaddafi-era Libyan weapons across eight countries in North and West Africa and the Middle East. The investigations had three primary objectives:

- to identify the typology of weapons originating in Libyan stockpiles and proliferated into regional conflicts following the 2011 revolution;
- to identify other sources of illicit military materiel circulating throughout the Sahel region; and
- 3. to identify groups, methods, and points of transfer that underpin the networks involved in the transfer of illicit military materiel.

During the project period CAR investigators visited Algeria, the Central African Republic, Chad, Lebanon, Libya, Mali, Niger, and Syria to establish new investigations and build on findings from previous investigations. Whenever possible, CAR investigators worked in conjunction with local security forces and non-state groups to document illicit weapons seized from armed groups and smugglers or captured on the battlefield.

CAR is grateful for the collaboration of many entities and individuals in its activities in the Sahel region, including in particular the Commission Nationale de Lutte contre la Prolifération des Armes Légères in Mali.



## INTRODUCTION

Libya has been a centre of weapon proliferation for more than 40 years. Muammar Qaddafi's Libyan Arab Jamahiriya amassed one of the largest and most diverse conventional weapon stockpiles of any African country. The regime used this stockpile in its own border conflicts, and to supply a wide range of governments and rebel groups across Africa, the Middle East, and beyond.

The demise of the Qaddafi regime in mid-2011 following the emergence of armed opposition and a NATO-led multinational intervention released large parts of the national stockpile from government control. Five years later, Libya is no longer a unitary state; there is no government monopoly on violence, nor is there centralised control over the instruments of war.

More than 100 militias with around 125,000 fighters—some originally supported by the NATO-led intervention under the National Transitional Council umbrella, others drawing on tribal and Islamist constituencies within and beyond Libya—continue to control territory and military weapons (ICG, 2011).

By May 2014, factional violence had spawned a fully fledged second civil war, further fracturing the patchwork of territorial and military control. In addition to the primary cleavage between forces loyal to General Khalifa Belqasim Haftar and the Council of Deputies in Tobruk, and those supporting the rival General National Congress in Tripoli, ethnic and Islamist militias of varying degrees of independence have continued to control much of southern and south-western Libya. They are active in areas around Sebha and Ubari, which were traditionally Qaddafi strongholds and thus sites of major pre-2011 national weapon stockpiles.

A PATCHWORK OF MORE THAN 100 MILITIAS WITH AROUND 125,000 FIGHTERS CONTINUE TO CONTROL TERRITORY AND MILITARY WEAPONS





Moreover, the large-scale movement of foreign fighters across Libya's borders has fuelled the commercial and state-sponsored transfer of weapons. In particular, large numbers of Tuareg fighters who had been recruited into Qaddafi's 'Islamic Legion', Maghawir Brigade, and other parts of the Libyan Army left for Mali and Niger in 2011; since late 2014, Libya witnessed an influx of foreign fighters loyal to Islamic State (IS) forces in the region of Sirte.

This report assesses the consequences and regional significance of the proliferation of weapons linked to the upheavals in Libya since Qaddafi's fall five years ago.

- 1. The evidence presented in the report confirms that the proliferation of weapons from Qaddafiera stockpiles:
  - fuelled the 2012 Tuareg and Islamist insurgencies in Mali;
  - has allowed armed actors operating throughout the Sahel region—including in Chad and Niger, and possibly in the Central African Republic and Côte d'Ivoire—to acquire weapon systems including small arms and man-portable air defence systems (MANPADS); and
  - permitted armed groups in the early stages of the Syrian revolution to obtain materiel—some of which subsequently reached IS forces.

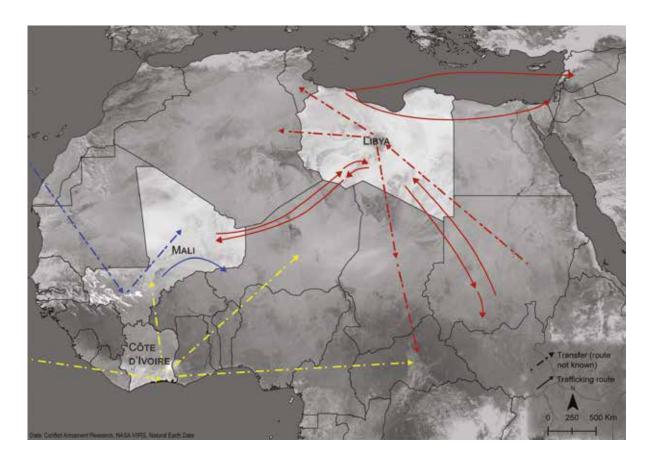
- 2. CAR finds, however, that illicit weapon flows in the Sahel since 2011 have not stemmed exclusively, or even predominantly, from Libyan sources. The profile of illicit weapons in the region reflects the consequences of other state crises, particularly in Mali, and of weak control over national stockpiles in the Central African Republic and Côte d'Ivoire. The prevalence of Ivorian-origin small arms across the region is a particularly unexpected finding of this investigation.
- 3. While weapons continue to proliferate from Libya, flows have diminished somewhat since 2014. Non-state armed groups and security officials in the region indicate that this reduction may be due in part to improved interdiction efforts on traditional transit routes, particularly in Chad and along the Nigerien and Algerian borders. An additional factor is that domestic demand for weapons in Libya has increased as communal conflicts across competing political domains have intensified.
- 4. Despite a decrease in weapon outflows from Libya, inflows remain steady. Since 2011, Sudan has been a particularly significant source of both combatants and small arms ammunition into Libya. CAR has found that ammunition in Sudanese transfers to Libya since 2014 may have reached non-state actors in the western Sahel as early as January 2015.

In addition to commonly documented legacy weapons that have been circulating for decades, a new set of weapons is in use among Islamist armed groups in the southern Sahel. In 2015–16, al-Qaeda-affiliated groups that were responsible for a spate of prominent attacks on international hotels and national security targets in the southern Sahel—central and southern Mali, Burkina Faso, and Côte d'Ivoire—used a common set of small arms unlike any previously documented in the sub-region. These include Iraqi-origin assault rifles

and a batch of Chinese rifles manufactured in 2011 whose serial numbers interleave with matching rifles that Syrian Kurdish People's Protection Units (YPG) seized from IS fighters in Syria in 2015. These findings indicate that the Islamist groups responsible for the Sahelian attacks have a common source of supply or constitute a single cell, and point tentatively to possible links or commonalities of supply sources between Islamist fighters in West Africa and those operating in Iraq and Syria.

Map 1

Documented flows of weapons and non-state armed personnel in the Sahel, 2011–present



Sources: CAR field documentation in the Central African Republic, Chad, Libya, and Mali, 2014–15; confidential source, Sudan; confidential source, Côte d'Ivoire; UNSC (2013; 2014a; 2014b; 2016a)

# **METHODOLOGY**

CAR photographically and physically documents illicit materiel *in situ*; GPS-records seizure and documentation sites; and maps contextual information provided during interviews with authorities in possession of illicit materiel, or non-state groups and individuals involved in the trafficking of weapons.

CAR does not rely on information or photographs from social media, since the provenance of such data is often difficult to verify. Moreover, open-source information does not always provide the detailed physical elements—notably external and internal markings—required to trace weapons and ammunition. In general, this information can only be obtained through physical examination.

In the absence of a comprehensive inventory or baseline of Qaddafi-era weapon stockpiles, CAR uses two methods to identify Libyan-origin weapons:

 conventional tracing, whereby weapon exporters and consignees provide CAR with information regarding weapon supplies to (and in some cases from) Libya; and  cross-referencing of batches, serial numbers, and series of weapons observed across the region with matching types documented in particular locations in Libya.

In many cases, it is not possible to trace documented weapons through their manufacturing countries. Export data is often unavailable for weapons exported to Libya in the 1970s or earlier.¹ In addition, some weapons in CAR's sample originate in exporting countries that do not respond to trace requests—whether sent by CAR or by governmental or intergovernmental bodies.

In these cases, the cross-referencing of matching weapons across CAR's data set reveals the likely provenance of weapons that would otherwise be untraceable. Such cross-referencing can only provide a minimum indication of the prevalence of Libyan-origin weapons in the region, since, in the absence of a comprehensive inventory of Libyan stockpiles, many Libyan-origin weapons will remain unidentified. Nonetheless, the cross-referencing of matching weapons can indicate the likely geographical scope of Libyan weapon proliferation.



## **KEY FINDINGS**

- CAR documented weapons in six countries throughout Africa and the Middle East that either certainly, or very probably, originated in Libyan stockpiles. These findings confirm the wide dispersion of Qaddafi-era materiel. These weapons include:
  - » Russian-manufactured SA-7b MANPADS with matching lot and quasi-sequential serial numbers documented in southern Libya, Lebanon, and Mali;
  - » North Korean-manufactured 40 mm F7-type rockets with matching lot numbers (5-82-T) documented in the Central African Republic and Lebanon;
  - » M79 90 mm HEAT rockets with semisequential serial numbers documented in Tripoli, Libya, and Rmeilan, Syria;
  - » a number of Polish assault rifles with Arabic markings manufactured during the second half of the 1970s and documented in the Central African Republic, Côte d'Ivoire, Libya, and Mali (rifles in the Central African Republic, Libya, and Mali had semi-sequential serial numbers, and the Government of Poland has confirmed that it only exported this type of rifle to five countries, including Libya); and
  - » Belgian- and French-manufactured 60 mm and 81 mm mortar rounds used by unidentified insurgents in attacks on United Nations (UN) bases in northern Mali since mid-2014, matching mortar rounds documented in Sebha, Libya.

- Armed violence in the Sahel region also appears to be fuelled by weapon and ammunition flows originating outside Libya. These supplies reflect the progressively decreasing availability of Qaddafi-era materiel since 2012 and rising Libyan domestic demand for weapons. Flows into Libya and other conflicts in the Sahel region include military equipment such as:
  - » recently manufactured (2011, 2013, and 2014) Sudanese small arms ammunition in circulation in southern Libya and Mali;
  - » recent Russian (2012) and Chinese (2011 and 2012) small arms ammunition in circulation in southern Libya; and
  - » ammunition used by Islamist combatants in Burkina Faso, Côte d'Ivoire, and central and southern Mali that matches legal and illicit ammunition circulating in Burkina Faso and Côte d'Ivoire, suggesting the existence of supply chains in the southern and western Sahel that do not originate in Libya.
- Islamist combatants have used new, externally sourced materiel in a string of prominent attacks in central and southern Mali since mid-2015, including:
  - » Chinese Type 56-1 assault rifles manufactured in 2011 that are newer than most other rifles documented in the region, that have semisequential serial numbers, and that are of the same type and year of production as rifles captured by YPG forces from IS forces in Kobane, Syria; and
  - » Iraqi-manufactured and -imported assault rifles.

# **SECTION 1**

# WEAPON OUTFLOWS FROM LIBYA

CAR visited Tripoli, Misrata, and Sebha in July and August 2015 to confirm linkages between Libyan stockpiles and illicit weapons in the wider region. CAR documented materiel obtained directly from Qaddafi-era stockpiles, captured from IS forces in Sirte, and seized or purchased from local ethnic militias or smugglers. The largest and most significant sample of weaponry in CAR's data set is from the southern city of Sebha, where the Misratan 3rd Force possessed weapons seized from smugglers and armed members of local ethnic

communities, including the Awlad Suleiman, Qadhaffa, Tebou, and Tuareg.

These weapons provided CAR with a partial baseline of weapons in western and southern Libya, which allowed for the identification of Libyan-origin weapons among samples documented in the Central African Republic, Lebanon, Mali, and Syria. This baseline also helped CAR to identify weapons that have entered Libya since the imposition of a UN embargo in 2011.



#### **BOX 1: POLISH KBK-AKMS RIFLES**

A simple example illustrates the possibilities and limitations of cross-referencing matching weapons across the region. In July 2015, CAR investigators documented a distinctive Polishmanufactured Kbk-AKMS assault rifle that Misratan 166th Brigade forces had captured from IS fighters in Sirte in March 2015. The weapon featured Arabic rear-sight markings.

Although export records for individual rifles of this type are not available, Polish authorities confirmed that Poland had exported Arabicmarked Kbk-AKMS rifles to Algeria, Egypt, Iraq, Libya, and Yemen during the last half of the 1970s.<sup>2</sup>

It is likely, therefore, that rifles whose serial numbers are sequentially close to the serial numbers of rifles documented in Libya are also of Libyan provenance. Rifles with serial numbers that are sequentially distant or whose years of production differ from those of the Libyan samples may come from one of the other four importing countries.

Figure 1
A Polish Kbk-AKMS rifle seized from IS forces in Sirte, Libya, photographed July 2015







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CAR's data set includes nine Polish Kbk-AKMS rifles with Arabic rear-sight markings in the possession of the following non-state combatants across the Sahel (see Table 1):

- In northern Mali, an unidentified armed group used such a rifle in a suicide attack in Tessalit in 2013; international forces seized others from an unidentified armed group in Kidal, Mali, in June 2014, and from a weapon cache north of Gao, Mali, in December 2014.<sup>3</sup>
- In 2014–15 former Séléka fighters in Bouca and Bangui, Central African Republic, handed

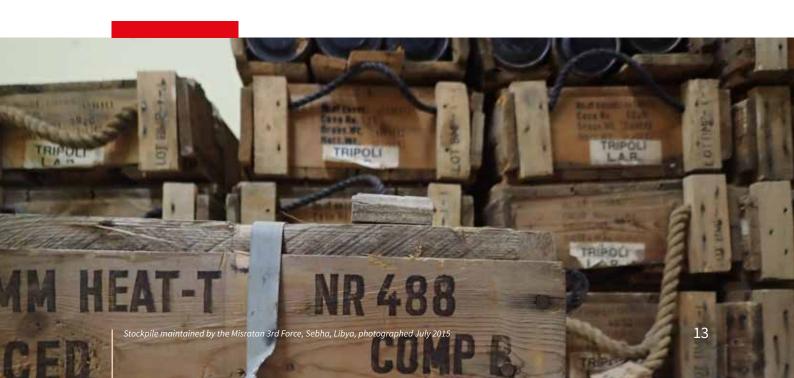
over such rifles to the UN Multidimensional Integrated Stabilization Mission in the Central African Republic (MINUSCA) peacekeeping operation, while Ugandan forces captured others during operations against 'janjaweed' militias and the Lord's Resistance Army (LRA) in Obo, Central African Republic, near the border with South Sudan.<sup>4</sup>

 Peacekeepers from the UN Operation in Côte d'Ivoire (UNOCI) recovered a significant batch of Arabic-marked Kbk-AKMS rifles during the disarmament of Forces Nouvelles fighters in Côte d'Ivoire in October 2012.<sup>5</sup>

#### BOX 1: POLISH KBK-AKMS RIFLES (contd)

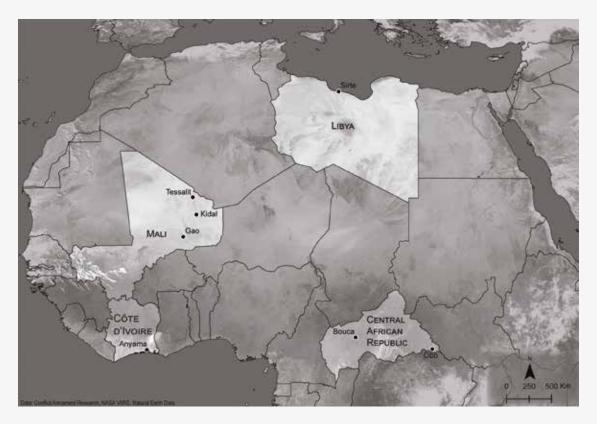
Table 1
Polish KbK-AKMS rifles documented in the Sahel region, 2012-present

Date documented	Location	Country	Armed group	Year of production	Serial number	Rear-sight markings	Context
Oct-12	Anyama	Côte d'Ivoire	Forces Nouvelles	1978	GL 04681	Arabic	Disarmament exercise
Oct-12	Anyama	Côte d'Ivoire	Forces Nouvelles	1977	CK 07848	Arabic	Disarmament exercise
Oct-12	Anyama	Côte d'Ivoire	Forces Nouvelles	1976	KP 17280	Arabic	Disarmament exercise
Oct-12	Tessalit	Mali	Unknown	1978	MO 21441	Unknown	Suicide attack
Dec-14	North of Gao	Mali	Unknown	1978	MG 21529	Unknown	Weapons cache
June-14	Kidal	Mali	Unknown	1976	HT 16389	Arabic	Seized by international forces
Apr-15	Obo	Central African Republic	'Janjaweed' or LRA fighters (uncertain)	1976	HT 19508	Unknown	Seized by international anti-LRA forces
Apr-15	Bouca	Central African Republic	Ex-Séléka	1977	PP 01802	Arabic	MINUSCA seizures
July-15	Sirte	Libya	IS	1976	HT 13907	Arabic	Seized from IS fighters



#### **BOX 1: POLISH KBK-AKMS RIFLES (contd)**

Map 2 Locations of Arabic-marked Polish Kbk-AKMS rifles among non-state armed groups, 2012–2015



Three of these rifles manufactured in 1976 are from the same batch (1976 HT). Although the rifles were recovered in three different countries, their serial numbers are only 2,500 and 3,000 apart in sequence, which makes supply in the same consignment plausible. Given that Poland reports supplying neither the Central African Republic nor Mali, it is likely that Libya was the original export destination.

At this stage, however, it is impossible to prove with absolute certainty that Poland supplied all three rifles to Libya, since exporters may have split batches of weapons among recipients. Further, it is also possible that IS fighters in Sirte obtained the rifle from another location outside Libya. The documentation of additional Kbk-AKMS rifles in Libya, together with their original packaging and export documentation, might help to exclude these alternative possibilities.

#### **COMMON SOURCES FOR DIFFERENT TRAFFICKING ROUTES**

Commonalities among seizures in the Sahel and the Middle East suggest that particular Libyan locations may be significant common sources of weapons transferred along several different trafficking routes, including those to the south and east. For example, CAR documented three SA-7b MANPADS with the same lot number that Russia manufactured in the late 1970s and early 1980s:

- 1. seized by Lebanese authorities while en route from Libya to Syria by sea;
- captured by international forces in northern Mali and probably trafficked via the Nigerien and Algerian borders; and
- 3. seized by the Misratan 3<sup>rd</sup> Force in Sebha, Libya.

The fact that these MANPADS share the same lot numbers may suggest that they derive from a single source in the region.

Table 2
SA-7b MANPADS tubes in Libya, Lebanon (en route to Syria), and northern Mali, 2012–15

Date documented	Location	Country	Armed group	Year of production	Lot number	Serial number	Context
July-15	Sebha	Libya	Unknown; seized	1976	10-76	10724	Seized by
July-15	Sebha	Libya	from traffickers in Sebha, Libya	1978	08-78	08920	Misratan 3rd Force at Gwert
July-15	Sebha	Libya		1981	03-81	031798	Mal checkpoint north-west of
July-15	Sebha	Libya		1981	03-81	031797	Sebha, Libya, July 2015
Mar-15	Louaizé	Lebanon	Unconfirmed;	1977	10-77	10931	Letfallah II
Mar-15	Louaizé	Lebanon	reportedly en route to Free Syrian Army (FSA) forces in Syria	1978	08-78	08496	cargo seized in Lebanon en
Mar-15	Louaizé	Lebanon		1978	08-78	081214	route to Syria, April 2012
Mar-15	Louaizé	Lebanon		1978	08-78	081629	
Mar-15	Louaizé	Lebanon		1978	09-78	09328	
Mar-15	Louaizé	Lebanon		1981	04-81	041201	
Mar-15	Louaizé	Lebanon		1981	04-81	04569	
Dec-14	North- east of Gao	Mali	Unknown armed group	1977	04-77	04428	Weapons cache uncovered by international
Dec-14	North- east of Gao	Mali		1977	10-77	10147	forces north- east of Gao, Mali, Dec 2014
Dec-14	North- east of Gao	Mali		1978	09-78	09548	

 $\textit{Notes:} \ \textbf{Colours indicate weapons with the same years of production and lot numbers.}$ 

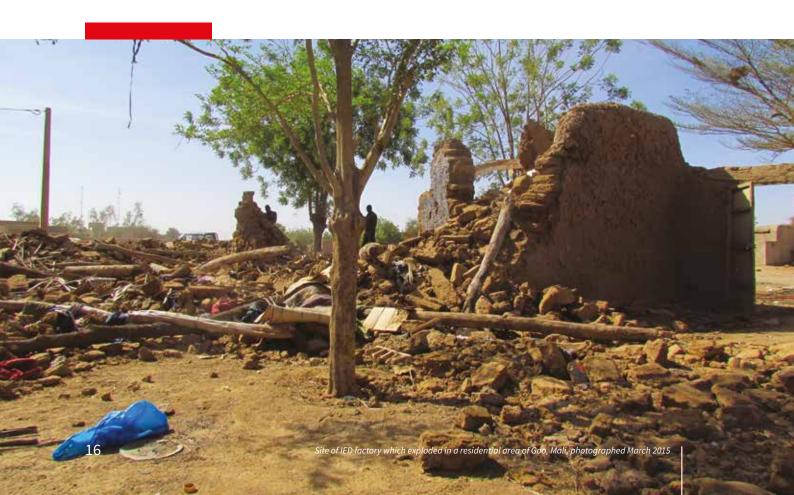
One possible source for some of the MANPADS documented in Libya in Table 2 is the arms depot in Barak Shati (55 km north of Sebha). This is the hometown of Abdullah Senussi, Muammar Qaddafi's former intelligence chief and brotherin-law. Commanders of the Misratan 3rd Force stated that Barak Shati was the origin of the four SA-7b MANPADS reportedly seized from smugglers at the Gwert Mal checkpoint (15 km north-west of

Sebha) that CAR examined in Sebha in July 2015. The fact that the three lots inspected in Libya, northern Mali, and Lebanon (en route to Syria) match strongly suggests that all are of Libyan provenance. It also suggests that all derive from the Barak Shati stockpile facility, although an examination of the depot would be required to confirm this assumption.

Figure 2
SA-7b MANPADS tubes documented in Libya, July 2015; Lebanon, March 2015; and Mali, December 2014



Sources: Conflict Armament Research; Operation Barkhane



The following sections discuss weapon flows from Libya to non-state actors in Mali, the Central African Republic, the Chad–Libya border area, Lebanon and Syria. CAR has identified these weapons either through formal weapon traces or by comparison with weapons of known or suspected Libyan provenance.

#### **WEAPON OUTFLOWS FROM LIBYA TO MALI**

CAR has examined recovered weapons in Gao, Sévaré, and Timbuktu, and also acquired verified captured weapon data from the Gao (Ménaka and Touzzek), Kidal (Kidal and Tessalit), Mopti (Dialloubé), and Sikasso (Misséni) regions. This combined data provides a partial overview of weapons and improvised explosive devices (IEDs) used by pro-government, separatist, and Islamist armed groups in Mali's southern border area

with Côte d'Ivoire, and its north and east regions neighbouring Burkina Faso.

CAR has confirmed that small arms, <sup>6</sup> large-calibre ammunition, MANPADS, <sup>7</sup> and anti-vehicle landmines from Libya have been supplied to both Islamist and separatist armed groups in Mali. This materiel includes:

#### PRB NR160 106 mm ammunition

Since the start of its operation to retake northern Mali (Opération Maliba) in mid-2013, the Malian Armed Forces (FAMa) recovered Belgianmanufactured 106 mm rounds from armed actors and caches in the Gao region.8 According to Belgian arms export licences, the manufacturer, Poudreries

Réunies de Belgique (PRB), never exported 106 mm ammunition to Mali. The company did, however, export a significant quantity of NR160 rounds to Libya during the 1980s, with lot numbers close in sequence to those documented in Mali.

#### Figure 3

NR160A1 round with lot number 8-9 (1980) documented in Sebha, Libya, July 2015 (left); NR160A1 round with lot number 8-8 (1980) among post-2013 Opération Maliba seizures in Gao, Mali, documented September 2015 (right)





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#### PRB M3 anti-vehicle landmines

Armed groups in northern Mali regularly construct IEDs using PRB M3 anti-vehicle landmines. The Qaddafi regime held large quantities of this type of landmine during the 1980s. CAR has documented PRB M3 mines with lot numbers BMP 1-19 and BMP 1-21 in Sebha, Libya, and a PRB M3 mine with lot number BMP 1-20 recovered near Kidal, northern Mali, in June 2015.

It remains unclear whether the M3 landmines prevalent in Mali derive from Libyan stockpiles or from minefields along Libya's borders. Chadian officials confirmed that the Libyan Army deployed PRB M3 mines extensively along the border during the Chad–Libya conflict and the occupation of the Aouzou Strip in the 1990s. Residents in northern Chad's Tibesti region allege that minefields in this region occasionally serve as sources for mine trafficking networks transiting through northern Niger, and for the supply of armed groups operating in the Sahel region.

#### Figure 4

PRB M3 anti-vehicle landmines with lot numbers BMP 1-19 and 1-21, documented in Sebha, Libya, July 2015 (left, centre top, centre bottom), and lot number BMP 1-20 (right), documented near Kidal, Mali, June 2015 (right)



 $\textit{Left/centre top/centre bottom} \\ @ \textit{Conflict Armament Research; Right} \\ @ \textit{confidential}$ 

Since before the fall of Qaddafi, the primary transit route of weapons and armed groups between Libya and northern Mali has historically run through the Salvador Pass area, along the Algerian and Nigerien border. This route then crosses the Taoua and Tillabéry regions of western Niger, entering Mali around the Niger–Mali–Burkina Faso tri-border area. Tuareg fighters and civilians in particular have used this route to move between Ubari and Sebha in southern Libya, and to the Kidal region of northern Mali (Lacher, 2014).<sup>12</sup>

Tuareg combatants of the Mouvement national de libération de l'Azawad (MNLA) allege that they have also received materiel and logistical support on commercial terms from Tebou convoys between Sebha and Kidal.<sup>13</sup> Interviews with Tuareg members of both loyalist and separatist armed groups, along with seizures by international forces, indicate that this route has become more difficult to transit due to increased surveillance. Yet, convoys carrying combatants, weapons, and other supplies continued to use it until at least mid-2015 (although in smaller numbers and convoy sizes compared with 2011–13).<sup>14</sup>

These movements continue to be orchestrated through a combination of communal and commercial loyalties. For example, Tuareg combatants from all sides of Mali's separatist conflict allege that immediately after the (progovernment) Imghad Tuareg-dominated Groupe autodéfense touareg Imghad et alliés (GATIA) captured the strategic town of Anefis in mid-August

2015 from the (anti- government) Ifoghas Tuaregdominated MNLA, a significant convoy of both Imghad and Ifoghas Tuareg personnel left Sebha in Libya to resupply their Tuareg counterparts in Mali. These combatants reportedly travelled together as far as Aguelhok before splitting into two groups, one supporting GATIA forces and the other the opposing MNLA forces.<sup>15</sup>

Table 3
Significant illicit convoys and convoy interdictions in the Salvador Pass region, January 2014-April 2016

Date	Location(s)	Seized/destroyed materiel	Notes	Source of information
10 Oct-14	Unspecified ('northern Niger')	Reported seizure of 3 tonnes of weapons, including anti-tank weapons, SA-7 MANPADS, machine guns, 23 mm anti-aircraft weaponry, and ammunition	Opération Barkhane in northern Niger; according to the UN Panel of Experts on Libya, convoy occupants subsequently testified that the arms were provided by an Algerian member of the Tareq Ibn Ziyad branch of al-Qaeda in the Islamic Maghreb who was based in Ubari, and that they were destined for Ansar Dine in northern Mali (UNSC, 2016a, p. 166)	
4 Feb-15	Unspecified ('northern Niger')	6 vehicles containing arms, ammunition, and more than EUR 500,000 in cash	Opération Barkhane and Forces Armées Nigériennes (FAN); convoy reportedly included MNLA combatants	Plateforme Tuareg leaders, Bamako, interviewed August 2015; UNSC (2016a)
4 Mar-15	Near Arlit, northern Niger	13 assault rifles, two PKM-pattern general-purpose machine guns (GPMGs), one heavy machine gun, one shotgun, one handgun, one mortar tube, about 1,700 rounds of ammunition from 7.62 x 39 mm to 23 x 115 mm.	Alleged MNLA unit moving from southern Libya to northern Mali	Regional source
2 May-15	Unspecified (northern Niger); reportedly seized by 24th Battalion interarmées (joint battalion) based at Dirkou with a company in Madama	1,700 'assault rifle' rounds, one 82 mm mortar tube, 27 60 mm mortar rounds, 11 107 mm rockets, one PKM-pattern GPMG, 60 radios	Abandoned vehicle found by FAN	Report of the UN Panel of Experts on Libya (UNSC, 2016a, pp. 166–67)
14 May-15	Southern Salvador pass, 100 km north- west of Madama, Niger	2 vehicles, 1.5 tonnes of drugs, PKM- pattern GPMGs, and AK-pattern rifles		Opération Barkhane
17–19 Aug-15	Sebha to Anefis via Algerian border and Aguelhok	N/A	Tuareg elements from Sebha region moving to support and resupply fighters of both the Plateforme and the Coordination des mouvements de l'Azawad around Anefis	MNLA combatants based in Kidal, interviewed September 2015

Sources: Opération Barkhane; testimonies of armed group members, Bamako and Gao, September 2015; UNSC (2016a)



Although the intended end users of these transfers are in most cases difficult to confirm, two pieces of evidence support allegations that Libyan sources have resupplied northern Malian armed groups, at least with ammunition, since 2011–12:

• 2014 Sudanese small arms ammunition:

In March 2015, international forces seized a crate of Sudanese 7.62 x 39 mm ammunition that had been packaged in 2014 from a cache concealed by an unidentified armed group to the south-west of Bakasso. Neither CAR nor international observers had previously seen Sudanese ammunition manufactured so recently in the Sahel region. While CAR cannot definitively confirm Libyan provenance, evidence shows that Sudanese weapons were supplied to forces in Tripoli and Kufrah during 2014 and 2015.<sup>16</sup>

CAR also documented the presence of recently manufactured Sudanese small arms ammunition in southern Libya in mid-2015 (see page 26).

### New sources of ammunition for mortar attacks:

In mid-2014 armed groups started to employ smaller, more accurate 60 mm and 81 mm mortars in attacks on international forces and facilities in northern Mali. The mortars include Belgian-manufactured NR431 60 mm rounds produced in 1975 and 1976, which are new to the conflict in northern Mali. CAR identified NR431 60 mm rounds manufactured in the same period in circulation in Sebha, Libya, in July 2015, although it has not yet documented examples with precisely the same batch and lot numbers.

Figure 5
NR431 60 mm mortar round documented in Sebha, Libya, July 2015





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Regional security officials report that the Libya– Niger–Mali flows outlined above may not have just decreased, but reversed in part. Although CAR has not seen physical evidence to support these assertions, Nigerien police officials responsible for counter-terrorism and anti-trafficking operations claim that since 2014, small arms have been trafficked primarily in small destabilising quantities from Mali via the Mali–Niger–Burkina Faso tri-border area into the Tillabéri region of western Niger.

These supplies are reportedly driven by demand from armed pastoralists. In November 2015, Nigerien police seized boxes containing around 20,000 Malian-manufactured 12-gauge shotgun rounds that smugglers were transporting by road between Niamey and the Burkinabé border.<sup>18</sup>

#### LIBYAN OUTFLOWS TO THE CENTRAL AFRICAN REPUBLIC

Materiel from Qaddafi-era Libyan stockpiles does not appear to account for a significant proportion of weapons or ammunition used by the former Séléka coalition. This coalition seized power in the Central African Republic between December 2012 and March 2013, precipitating the current political crisis in the country. Although CAR documented ammunition in Bangui that was similar to that identified elsewhere with confirmed and suspected links to Libya, it cannot confirm—either through witness interviews or formal weapon traces—the existence of specific trafficking networks connecting suppliers in Libya directly with armed groups in the Central African Republic.

Holdings of both former Séléka and anti-Balaka community defence militias contain far more weapons that originated in Chad and Sudan—two countries that have played significant political roles in the Central African crisis—and weapons consistent with the Bozizé regime's pre-Séléka imports into the country. Additionally, Central African military personnel familiar with precrisis state stockpiles suggest that the limited equipment consistent with Libyan stockpiles could have been supplied to the Central African Republic by the Libyan Army in the late 1990s and the early part of the following decade. During this period

Qaddafi's Presidential Guard had provided a close protection unit to the then-president, Ange-Félix Patassé.<sup>19</sup>

Equally, Central African rebels could have obtained Libyan weapons indirectly in other countries in the region—particularly Chad and Sudan. Another possibility is that small-scale and opportunistic flows arrived from Libya between the fall of the Qaddafi regime and the end of the Séléka regime in March 2013.

CAR observed two specific weapons of possible Libyan origin that the MINUSCA peacekeeping mission and French Opération Sangaris stabilisation force had collected from armed actors:

- Polish-manufactured Kbk-AKMS assault rifles from the same lot (1976 HT) as a rifle seized from IS fighters in Sirte in March 2015 (see Box 1); and
- North Korean-manufactured 40 mm F7 rocket-propelled grenades (RPGs) that Opération
   Sangaris forces seized from armed combatants
   in Bangui in 2014. The RPGs are from the same
   lot (5-82-T) as F7 RPGs that were documented in
   Lebanon (see Figure 6).

Figure 6
F7 RPG seized by Opération Sangaris in Bangui, Central African Republic, documented in September 2014 (top), and F7 RPG documented in Louaizé, Lebanon, March 2015 (bottom)





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#### LIBYAN OUTFLOWS TO AND VIA CHAD

The large region of Tibesti, near the Chad–Libya border, constitutes a strategic location along the major trafficking routes that cross the Sahel close to Libya. It has ethnic and historical commonalities with southern Libya and northern Niger, both of which are populated by Tebou groups.

Considered a desert buffer zone by N'Djaména, Tibesti also has a long history of conflict—the most recent between the government and the Mouvement pour la démocratie et la justice au Tchad, which only demobilised in 2011. The region plays a key role in trans-border trade, both legal and illicit, between Chad, Libya, and Niger, underpinned primarily by Tebou commercial networks.

Interviews with combatants and local authorities in Tibesti confirm that there were three major weapon trafficking routes from Libya into and across Chadian territory between mid-2011 and late 2012:

- an east-west route along the northern border to Niger, Algeria, and northern Mali;
- a south/south-east route following the border with Sudan, supplying the Sudan Liberation Army–Minni Minnawi (SLA–MM) and the Justice and Equality Movement (JEM), including some of the heaviest weapons in the current inventories of these groups;<sup>20</sup> and
- a south-west route transiting through Chad to the Lake Chad Basin region. Many of the illicit transfers undertaken in this period involved Tebou traders from Chad, Niger, and Libya as intermediaries and transporters.

Chadian authorities have seized weapons that confirm the patterns above, including not only small arms and light weapons and artillery, but also 35 SA-7b MANPADS that Chadian authorities seized from Tebou traders at Chad's northern border in July 2012.<sup>21</sup>

From the second half of 2012 onwards, Libyan weapon outflows transiting through Chad diminished. This trend persisted into late 2015, although Tebou militias controlled most of Libya's southern border with Chad, and despite the fact that Tebou commanders, such as Barka Wardougou, Allatchi Mahadi, Issa Abdelmajid Mansour, and Ramadan Suleiman, enjoyed significant control in the southern Libyan cities of Murzuq, Qatroun, Sebha, and Ubari (while a more volatile balance of forces persists in Kufrah, in southern Libya).<sup>22</sup>

Border communities and combatants attribute the diminished outflow of weapons primarily to the eruption of inter-communal armed conflicts in the areas of Kufrah, Murzuq, and Ubari (largely, although not exclusively, involving opposing 'Arab' and 'African' tribes). These conflicts have generated internal demand that appears to have outweighed the importance of external demand for intermediaries and traffickers, despite the fact that trading routes connecting Chad and Libya are now more easily passable than during the Qaddafi era. Correspondingly, Chad's weapon seizures at its northern border have declined significantly, with approximately 600 individual weapons seized in 2015, mostly in small quantities.<sup>23</sup>

Local authorities and residents also report that the political dynamics in southern Libya have affected an east–west trafficking route for narcotics and tobacco.<sup>24</sup> This route previously transited northern Niger, northern Chad, and southern Libya en route to Egypt, and then led onwards to Europe. The route primarily ran through northern Chadian territory until the 2011 Libyan regime change, when it shifted north to take advantage of the resulting lawlessness in Libya.<sup>25</sup>



#### LIBYAN WEAPON OUTFLOWS TO LEBANON AND SYRIA

CAR has documented large quantities of military materiel that YPG forces seized from IS fighters in northern Syria since mid-2014. Additionally, in March 2015, the Lebanese Armed Forces (LAF) granted CAR access to weapons seized from the Letfallah II, a ship that the LAF had interdicted off the coast of Lebanon in April 2012. The ship was carrying more than 150 tonnes of military equipment, including materiel from Libyan stockpiles, which was suspected of being destined for Free Syrian Army (FSA) fighters in Syria.

The case of the *Letfallah II* highlights Lebanon's role as a conduit for weapons into Syria and provides linkages to materiel documented by CAR in the Central African Republic, Libya, and Mali, including the matching batches of Soviet-origin MANPADS and North Korean RPG rounds described above. The UN Panel of Experts on Libya traced other materiel found on board the *Letfallah II*, including Russian-manufactured SA-24 surface-to-air missiles, to Libyan stockpiles (UNSC, 2014a, p. 43 and 89).

CAR documented the following weapons and ammunition (Table 4) found on board the *Letfallah II*.

Table 4
Weapons and ammunition found on the Letfallah II

Туре	Quantity remaining in Lebanese custody as of March 2015		
FN FAL rifle	12		
AK-pattern assault rifle	9		
Vz 58 P assault rifle	4		
Dragunov-pattern sniper rifle	1		
FN MAG GPMG	1		
KPV 14.5 mm heavy machine gun	1		
RPG-7-pattern rocket launcher	3		
SA-7 MANPADS gripstock	1		
Scope	8		
GPV-2 fuse	1,678		
23 mm ammunition	264		
F-7 PG-7-pattern rockets	82		
U5TC 115 mm tank ammunition	34		
130 mm rocket	11		
107 mm rocket	9		
Konkurs anti-tank guided missile	12		
Metis anti-tank guided missile	3		

Туре	Quantity remaining in Lebanese custody as of March 2015
9M141 anti-tank guided missile	1
SA-7b MANPADS	10
SA-24 surface-to-air missile	2
Propellant charge	10
TBG-7V thermobaric rocket	9
MK2 hand grenade	7
RDG5 hand grenade	2
RPO-Z incendiary rocket	2
PRG-75 rocket launcher	1
155 mm Simmel artillery round	1
SNEB-68 (66 mm) air-to-ground unguided rocket	22
Air-to-ground firing pod for 57 mm S5 rockets	1
Air-to-ground firing pod for 68 mm F1 rockets	1
Air-to-ground firing pod for 72 mm rockets	1

The relative contribution of Libyan materiel to Syrian armed groups' holdings is difficult to quantify, but CAR has documented weapons with particular military significance in both Libya and Syria that likely share common sources. For instance, Yugoslav-manufactured M79 90 mm armour-piercing anti-tank weapons, used by the FSA and other Syrian rebel forces, as well as by IS forces in Iraq, have proved particularly significant against government armour.

In 2014 and 2016, CAR investigators documented several M79s in Syria and Iraq that anti-IS forces had captured from the group. Some carried a

lot number that is two digits from an M79 that in July 2015 CAR observed in stockpiles collected by the Libyan Mine Action Centre and held in the Janzour neighbourhood of Tripoli. Although international media has reported that M79 munitions were provided from Croatia to Syrian rebels in 2013 (Chivers and Schmitt, 2013), CAR traced a number of M79s it documented and can confirm connections between a rocket bearing the lot number TB8606, documented in Libya, with rockets bearing the same lot number in Slovenian Army stocks. Slovenia exported the rockets for destruction by a Slovak company, in 2005. CAR cannot confirm whether the Libya rocket originated from Slovenian Army stocks, because the rockets were controlled by the Yugoslavian Army and therefore could have been held by any former Yugoslavian state.26

Figure 7 M79 90 mm anti-tank weapon documented by CAR in Rmeilan, Syria, July 2014 (left) and in Tripoli, Libya, July 2015 (right)







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## **SECTION 2**

# POST-2011 WEAPON INFLOWS TO LIBYA

A comprehensive account of Libyan state and nonstate groups' weapon supply sources is beyond the scope of this report.<sup>27</sup> Nevertheless, weapons observed and witness testimonies attained from Libya and surrounding countries, indicate significant inflows from the Sahel region and a recent reversal of some of the outflows detailed in Section 1.

Notably, Sudanese government and antigovernment groups provide weapons and fighters to all sides in Libya's conflicts. These inflows of weapons and fighters contrast with fears widely voiced in 2011 that *outflows* of Libya's unsecured arsenals would destabilise rebellion-hit areas of western Sudan and eastern Chad.<sup>28</sup>

Darfuri armed group members, combatants, and residents in northern Chad report that fighters present in Libya in 2015 include:

- Darfuri armed opposition groups, particularly SLA-MM and JEM, fighting alongside the Tobruk forces:
- Darfuri 'janjaweed' and Arab militias that were previously aligned with the Sudanese government, but are now fighting alongside forces loyal to the Tripoli government, and with

'Arab' Awlad Suleiman and Zway militias in southern Libya; and

 Chadian armed opposition groups previously backed by Sudan, including the Gorane group led by Mahamat Nouri and the Zaghawa group loyal to Tom and Timane Erdimi.<sup>29</sup>

The Libyan conflict has provided opportunities for both Chadian and Sudanese armed groups to procure weapons and secure financial resources that may eventually be returned to Sudan and Chad. Some of these groups also report that their members were drawn by the gold rush that has emerged in Darfur, northern Niger, northern Chad, and southern Libya since mid-2012.

A sample of post-embargo small arms and light weapons ammunition that CAR documented in southern Libya in July 2015—which local forces had seized or purchased from Awlad Suleiman, Qadhaffa, Tebou, and Tuareg combatants—is consistent with Sudanese ammunition production and stocks. This ammunition included 7.62 x 39 mm ammunition found in Sebha that was manufactured in 2011 and 2013 and bore markings consistent with ammunition produced by Sudan's state-owned Military Industry Corporation (see Figure 8).



Figure 8
Embargo-year and post-embargo Sudanese-manufactured 7.62 x 39 mm ammunition documented in Sebha, Libya, July 2015





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CAR also documented post-embargo 7.62 x 39 mm, 7.62 x 54R mm, and 12.7 x 108 mm ammunition with marks indicating Chinese production in 2011 and 2013. The 12.7 x 108 mm Chinese ammunition was packed in crates and black plastic bags

consistent with Sudanese ammunition packaging, suggesting that parties in Sudan repackaged the ammunition prior to its illicit transfer to Libya (see Figure 9).<sup>30</sup>

Figure 9
Chinese-manufactured ammunition packed in Sudanese ammunition packaging, documented in Sebha, Libya, July 2015



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Figure 10
Embargo-year and post-embargo Chinese-manufactured ammunition documented in Sebha, Libya, July 2015: 7.62 x 54R mm (top row), 7.62 x 39 mm (middle row), and 12.7 x 108 mm (bottom)











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CAR also documented post-embargo Russianmanufactured 7.62 x 54R mm ammunition produced in 2012 by the LVE Novosibirsk Cartridge Plant JSC (see Figure 11). In the absence of packaging, CAR has yet to confirm this ammunition's chain of custody.

# Figure 11 Post-embargo Russian-manufactured 7.62 x 54R mm ammunition documented in Sebha, Libya, July 2015

THE LIBYAN CONFLICT HAS PROVIDED OPPORTUNITIES FOR BOTH CHADIAN AND SUDANESE ARMED GROUPS TO PROCURE WEAPONS AND FINANCIAL RESOURCES THAT MAY EVENTUALLY BE RETURNED TO SUDAN AND CHAD.



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# **SECTION 3**

# OTHER SOURCES OF ILLICIT WEAPONS IN THE SAHEL: STATE CRISIS AND STOCKPILE PROLIFERATION

Since 2011, research and media narratives about illicit weapon proliferation in the western Sahel have focused primarily on weapons originating in Libyan stockpiles or trafficked by Libyan armed groups.<sup>31</sup> Sections 1 and 2 of this report demonstrate that such flows remain significant, but that they are diminishing and, in some cases, being reversed. While these changes are partly due to border security enforcement and convoy interdiction by national and international forces, they also reflect rising internal Libyan demand—particularly in the southern areas of the country.

Equally prominent in the illicit weapons sample that CAR examined across the Sahel, however, are arms originating in the national stockpiles of at least two other states that have suffered partial or major state crises: Mali and Côte d'Ivoire.

In Mali, separatist and Islamist armed groups gained control of substantial stockpiles of the Malian security forces as they took control of northern towns and cities in 2012.<sup>32</sup> The MNLA, likewise, seized substantial FAMa stocks at the headquarters of the *7e région militaire* in Kidal in



May 2014, including ammunition ranging from 7.62 x 39 mm to 14.5 x 114 mm, RPG rockets, 120 mm mortar rounds, 122 mm artillery rounds, and at least one BTR-60 armoured personnel carrier.<sup>33</sup>

Although difficult to confirm quantitatively, the evidence presented below suggests that such wholesale seizures during the 2012 and 2014 crises have been more substantial supply vectors of illicit weapons to Malian armed groups than postcrisis thefts, sales, or smuggling. Likewise, Malian armed movements have employed an increasing proportion of heavy weaponry from Malian government stockpiles—particularly ammunition for larger weapon systems such as rockets and artillery—as opposed to Libyan or other foreign sources. This materiel includes small arms and aircraft ammunition legitimately imported into Mali in 2012 to combat the Tuareg/Islamist insurgencies, which was subsequently recovered from anti-government armed groups' weapon caches in northern Mali in late 2014 and early 2015 (see Figure 12).34

MALIAN ARMED MOVEMENTS
HAVE EMPLOYED AN
INCREASING PROPORTION
OF HEAVY WEAPONRY SEIZED
FROM MALIAN GOVERNMENT
STOCKPILES AS OPPOSED TO
LIBYAN OR OTHER FOREIGN
SOURCES.

#### Figure 12

Bulgarian-manufactured 57 mm S5-KO rocket recovered from a weapon cache north-east of Gao, Mali, in January 2015



*Notes:* The Bulgarian firm Metalika AB Ltd delivered this rocket to the Malian Ministry of Defence in 2012.

**Sources:** Opération Barkhane; correspondence with the Government of Bulgaria, 8 June 2015



#### BOX 2: NON-CONVENTIONAL ROCKET ATTACKS IN MALI, 2013-16

One indicator of the growing significance of captured domestic stocks in the arsenals of Mali's armed groups is the prevalence of artillery shells and rockets used in projected IED (P-IED) attacks in Mali. The majority of this artillery ammunition originated in Malian stockpiles, despite the same weapon systems and ammunition having entered Mali from Libya, according to UN reports.<sup>35</sup>

Improvised rocket attacks, typically either launched manually or using cell-phone timer triggers, have become a prime modus operandi of attacks against international forces and national security personnel across northern Mali since 2013.<sup>36</sup> These attacks primarily use 'GRAD' BM-21 122 mm rockets and occasionally repurposed S-5 57 mm air-to-ground rockets (see Figure 13).

The majority of eighty 57 mm and 122 mm rockets either used in P-IED attacks or recovered from weapon caches in Mali between March 2013 and April 2016 are of Soviet origin, whose original exporters do not provide tracing information.<sup>37</sup> Only one rocket has therefore been traced directly to Malian state stockpiles, using information provided by its exporter. However, comparison of the rocket motor and warhead lot and batch numbers suggest that a much larger number are attributable to Malian state stockpiles. These lot numbers either match those of rockets in Malian state stockpiles (indicating that they are very likely from state stocks themselves), or are sequential to them (indicating that they are probably from state stocks).

Figure 13
122 mm 9M22U 'GRAD' rocket set up for use in a P-IED attack, discovered at Inélou, Ansongo, Mali, 28 February 2015





Source: Confidential

#### BOX 2: NON-CONVENTIONAL ROCKET ATTACKS IN MALI, 2013-16 (contd)

Figure 14
122 mm rocket crates at abandoned FAMa storage facility, 3 km south of Gao, Mali, documented in March 2015





Notes: The lot number corresponds with the rocket found at Inélou (see Figure 13). © Conflict Armament Research

This is an opportunistic and fairly small sample. However, the proportion of rockets that probably (and, in some cases, near certainly) derive from Malian state stocks is never less than 20 per cent of the total sample. This figure rises over time, exceeding 60 per cent

in 2015 and reaching 100 per cent in the first three months of 2016 (see Table 5). These are minimum figures, since CAR does not have an inventory of national stockpiles against which to match illicitly held rockets.

#### BOX 2: NON-CONVENTIONAL ROCKET ATTACKS IN MALI, 2013-16 (contd)

Table 5
Rockets used in P-IED attacks or recovered from weapons caches, Mali, documented in March 2013–March 2016

Date	Туре	Date	Туре	Date	Туре	Date	Туре
	S-5		9M22U		9M22U	Apr-15 (Contd)	9M22?
Mar-13	S-5		9M22U		9M22U		9M22?
Mai 13	S-5		9M22U		9M22U		9M22?
	S-5		9M22U		9M22U		9M22?
	9M22U		9M22U		9M22U		9M22?
May-14	9M22M	Jan-15	9M22?		9M22U		9M22?
Oct-14	9M22M	(Contd)	9M22?		9M22?		9M22?
	9M22U		9M22?	Apr-15 (Contd)	9M22M		9M22?
	9M22U		9M22?		9M22M		9M22?
	9M22U		9M22?		9M22M	May-15	S-5KO
D14	9M22U		9M22U		9M22M		9M22U
Dec-14	9M22U		9M22?		9M22M		9M22U
	9M22U	Feb-15	9M22M		9M22M		9M22?
	9M22U	May 15	9M22U		9M22M		9M22?
	9M22?	Mar-15	9M22U		9M22M		9M22?
	S-5MO		9M22U		9M22M	Jan-16	9M22U
Jan-15	S-5MO	Apr-15	9M22U		9M22M		9M22M
	S-5MO		9M22U		9M22M		9M22M
	S-5MO		9M22U		9M22M		9M22M
	S-5KO		9M22U		9M22?		9M22M

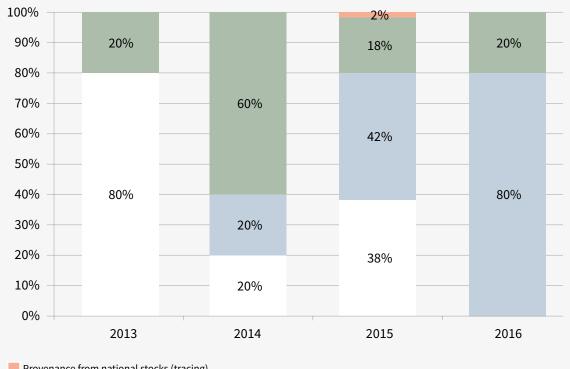
#### KEY

- Rockets directly traced to Malian state stocks through accompanying documentation or tracing
- Rockets very likely from Malian state stocks (matching lot numbers)
- Rockets probably from Malian state stocks (sequential lot numbers)

Sources: CAR documentation; Opération Barkhane; confidential sources, Mali

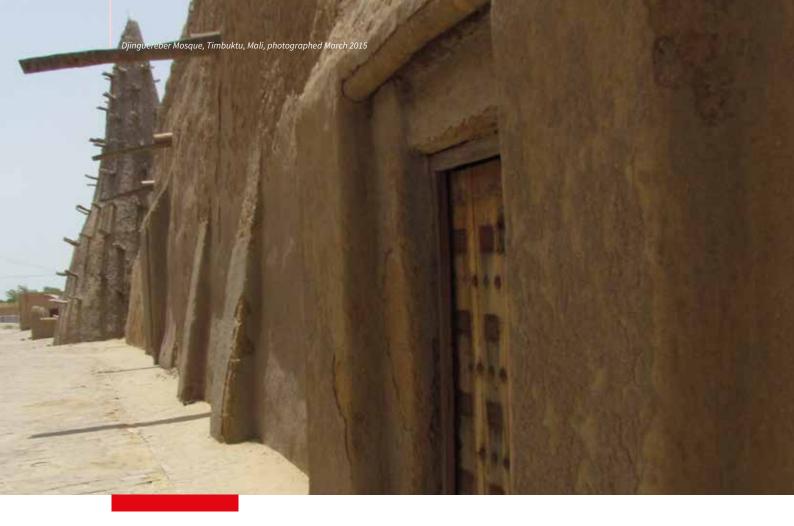
#### Box 2: Non-conventional rocket attacks in Mali, 2013–16 (contd)

Figure 15 Rockets seized or recovered from armed groups' caches or P-IED attacks, Mali, March 2013-March 2016



- Provenance from national stocks (tracing)
- Provenance from national stocks deduced (matching lot numbers)
- Provenance from national stocks likely (sequential lot numbers)
- Provenance unverified





#### **CÔTE D'IVOIRE**

Outflows from Ivorian state stockpiles are less well understood than those from Mali. Weapons that likely originate in Ivorian stockpiles are prevalent as far afield as the Central African Republic, which is a significant unanticipated finding of this research.

Without a baseline of Malian and Ivorian state stockpiles of arms and (particularly) ammunition, it is almost impossible to quantify the prevalence of arms from Ivorian state stockpiles among illicit weapons across the region. However, use of the 'isotope' method—whereby one weapon type serves as a marker for larger flows—at least indicates the geographical spread of these weapons. In this case, the isotope weapons are a distinctive series of Type 56-2 assault rifles.<sup>38</sup>

All such rifles originate from a single Chinese factory and feature serial numbers in the range 3700000–3732000. Although the Chinese government has not responded to trace requests regarding specific rifles, it has confirmed to the UN that 13 rifles in this range (3703417–3731808)—which UNOCI collected from Forces Nouvelles personnel during formal disarmament and

demobilisation processes in 2012—were originally lawfully exported to the Government of Côte d'Ivoire prior to 2004. Since Chinese Type 56-2 assault rifles are usually exported in crates containing very close serial numbers,<sup>39</sup> rifles documented outside Côte d'Ivoire whose serial numbers fall between those known to have been exported to Côte d'Ivoire are very likely (although not certain) to have been supplied during this transfer to Côte d'Ivoire.

CAR has documented small numbers of rifles in this range in Mali, but larger numbers in the Central African Republic. In the latter case they constituted 20 per cent of all illicit AK-pattern rifles that CAR documented in the country from 2014–15 and more than 35 per cent of illicit Type 56-2 rifles. This is a significant proportion, given that the Type 56-2 is also the standard service rifle of the Forces Armées Centrafricaines (FACA).40

CAR has also confirmed that two rifles in this serial number range were captured from alleged al-Qaeda in the Islamic Maghreb (AQIM) fighters near the Nigerien–Libyan border in September 2011 and August 2013.<sup>41</sup>

Table 6
Type 56-2 assault rifles manufactured in Factory 26 with '37XXXXX' serial numbers, documented in Mali and the Central African Republic, 2013–15

Serial number	Date documented	Location	Country	Armed group?	Notes
3700791	May-14	Bamingui	Central African Republic	n/a	Seized by armed elements from Ecofaune <sup>a</sup> (legitimate user); originally from the FACA
3704979	Apr-15	M'Poko Opération Sangaris Camp, Bangui	Central African Republic	n/a	Provenance unknown; among various stocks collected from armed groups and civilians
3710972	Apr-15	Bria	Central African Republic	n/a	Voluntary civilian collection (MINUSCA Police)
3711122	Apr-15	Obo	Central African Republic	n/a	International operation against 'janjaweed' and LRA elements
3711633	May-14	Bamingui	Central African Republic	n/a	Seized by armed elements from Ecofaune (legitimate user); originally from the FACA
3717862	Apr-15	Mbaiki	Central African Republic	Ex-Séléka	Seized by MINUSCA forces
3718199	May-15	Gao–Gossi road	Mali	n/a	Seized from two armed men on a motorcycle
3718854	Apr-15	Bangui	Central African Republic	n/a	Voluntary civilian collection point
3725797	Apr-15	Obo	Central African Republic	n/a	International operation against 'janjaweed' and LRA elements
3728850	Apr-15	Bangui	Central African Republic	n/a	Voluntary civilian collection point
3729769	Apr-15	Bria	Central African Republic	Ex-Séléka (Union des forces démocratiques pour le rassemblement)	Opération Big Boumou (MINUSCA-Opération Sangaris)
3730237	Mar-13	Gao	Mali	Mouvement pour l'unicité et le jihad en Afrique de l'Ouest	Recovered after departure of armed groups from town

<sup>&</sup>lt;sup>a</sup> See EU (n.d.).

#### Figure 16

Type 56-2 Factory 26 assault rifle captured from former Séléka (Union des forces démocratiques pour le rassemblement) fighters in Bria, Central African Republic, during a joint MINUSCA-Sangaris operation 11 February 2015, documented on 16 April 2015





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Without more detailed information from the Chinese and Ivorian governments about the original export of these rifles and their distribution to Ivorian forces, it is difficult to be certain about the precise point at which they were diverted. Indeed, legal onward transfers from Ivorian stockpiles may have preceded the (illegal) diversion.

For example, CAR identified two such rifles in the looted inventory of Ecofaune—the European Union-funded wildlife protection force in northern Central African Republic—which the FACA had originally donated to Ecofaune (EU, n.d.; see Table 6). It is thus possible that Côte d'Ivoire disposed of some of the rifles by retransfer to the Central African government. A senior FACA military intelligence officer and a wildlife service stockpile officer confirmed that such a transfer took place in early 2012, although it remains unclear which Ivorian authority authorised the transfer and how

the rifles were physically delivered to the Central African Republic.<sup>42</sup>

International forces in Mali seized another rifle from the same serial number sequence from armed civilians who were travelling from the Burkinabé border towards the Gao region in May 2015, suggesting that traffickers may have smuggled it from Côte d'Ivoire to Burkina Faso, possibly as a result of cross-border movement of Forces Nouvelles elements or other non-state actors.

CAR continues to seek more detailed information on the status of these rifles in Ivorian stockpiles in order to verify the accuracy of these hypotheses. Yet the fact that the rifles entered Mali as late as mid-2015 indicates that they continue to constitute new supply sources for armed actors in the region, even if their original diversion from Ivorian state stockpiles may have occurred several years ago.

INTERNATIONAL FORCES IN MALI SEIZED ONE RIFLE IN THIS SAMPLE FROM ARMED CIVILIANS TRAVELLING FROM THE BURKINABÉ BORDER TOWARDS THE GAO REGION IN MAY 2015, SUGGESTING THAT TRAFFICKERS MAY HAVE SMUGGLED IT FROM CÔTE D'IVOIRE TO BURKINA FASO.

## **SECTION 4**

# MIDDLE EASTERN SMALL ARMS IN SAHELIAN ISLAMIST ATTACKS: AN EMERGING TREND

#### TRANSNATIONAL SUPPLY CHAINS

Although most successfully traced illicit weapons in the Sahel region derive from Libyan, Malian and Ivorian state stockpiles, armed groups' supply and logistics networks appear to extend well beyond these countries.

One case in point are supplies of the Nokia 105 mobile telephone, which is commonly used as a timer device to launch 122 mm rocket attacks against international and national forces in northern Mali (see Box 2). CAR examined seven such telephones that were recovered from two separate attacks near Ansongo on 28 February 2015 and 6 January 2016, and from the site of a suspected IED factory that exploded in the Chateau district of Gao town on 23 March 2015.

Five of these telephones and three of their SIM cards have so far been traced. All three SIM cards were for a network operator that does not operate in Mali, and all five telephones were originally supplied to a Nigerian distributor in four separate shipments to Nigeria and Senegal just months before their recovery in northern Mali.<sup>43</sup>

CAR continues to investigate their chain of custody.

Similarly, separatist armed groups' 4 x 4 vehicles appear to have been procured outside Mali, despite the prevalence of thefts of such vehicles from civilians and security forces in the country. CAR traced the supply routes of five Toyota Land Cruiser vehicles captured by GATIA forces from the MNLA in Ménaka, northern Mali, on 27 April 2015.<sup>44</sup> None of the five vehicles had been legally imported into Mali.<sup>45</sup> Two had originally been imported into Algeria in 2008; two into Saudi Arabia by a major Saudi importer of Toyota vehicles that supplies several other countries;<sup>46</sup> and one by an Omani importer that subsequently sold the vehicle to a Dubai-based import–export dealer operated by two Libyan nationals.<sup>47</sup>

Although CAR has not yet reconstructed these vehicles' full chains of custody, it is clear that either the MNLA or the individuals or groups from which the MNLA obtained or captured these vehicles originally obtained them outside Mali.



A GROWING BODY OF EVIDENCE POINTS TO A DISTINCTIVE SET OF SMALL ARMS THAT FIGHTERS FROM AQIM AND AL-MOURABITOUNE HAVE USED IN 'MARAUDING' ATTACKS AGAINST CIVILIAN AND GOVERNMENT TARGETS IN CENTRAL AND SOUTHERN MALI, BURKINA FASO, AND CÔTE D'IVOIRE SINCE MID-2015.

#### SMALL ARMS OF MIDDLE EASTERN PROVENANCE

A growing body of evidence points to a distinctive set of small arms that fighters from AQIM and al-Mourabitoune have used in 'marauding' attacks against civilian and government targets in central and southern Mali, Burkina Faso, and Côte d'Ivoire since mid-2015. The weapons used—AK-pattern Type 56-1 assault rifles—are a type which are readily available from local sources in the region but which seem instead to have been sourced transnationally. These rifles are not of obvious Libyan or Malian provenance, and CAR had not documented them anywhere else in Mali or the sub-region before these attacks.

- Al-Mourabitoune and the allied Force du Libération de Maçina used, amongst other weapons, three Chinese Type 56-1 assault rifles carrying semi-sequential serial numbers in the format '560XXXXX' in attacks against the Hotel Byblos in Sévaré (Mopti region) and the Hotel Radisson Blu in Bamako in August and November 2015, respectively.<sup>48</sup>
- CAR understands that AQIM has used rifles also carrying '560XXXXX' serial numbers in at least three other attacks: (1) at the Hotel Splendid and Le Cappuccino café in Ougadougou, Burkina Faso, on 15 January 2016; (2) in Grand Bassam, Côte d'Ivoire, on 13 March 2016; and (3) against the EU Training Mission headquarters in the ACI 2000 district of Bamako on 21 March 2016.

In all cases, codes normally indicating the manufacturer and year of manufacture on the rear-sight blocks of the eight rifles had been deliberately erased, although in the case of the rifle from the Hotel Byblos attack, they were still partially readable, and suggested that the rifle was manufactured in Chinese State Factory 26 in 2011. Evidence from other Factory 26 rifles manufactured from 2010-13 indicate that the

serial number prefix '560XXXXX' corresponds to manufacture in 2011. These rifles are therefore of considerably more recent manufacture than any other rifles so far documented in the hands of nonstate actors in the region.

The Chinese government has not yet responded to trace requests sent by either CAR or UN bodies regarding these rifles, but has specifically denied any supplies of Chinese weapons to Libya since 2011, when these rifles were likely manufactured. Significantly, however, CAR has documented two Chinese Type 56-1 rifles from the same '560' serial number series in January 2015 in Kobane (Syria), following capture by the YPG from IS forces (see Table 7 and Figure 18). These corresponding serial numbers suggest that China may have originally transferred all the Type 56-1 rifles used in these attacks to the same legal end user and that Islamist fighters responsible for the West African attacks may share a common source of supply with IS forces in Syria.

Another possible scenario may be that corresponding rifles in West Africa and Syria reflect the movement of individual fighters travelling with their own weapons. This view would support the theory that a single cell was responsible for recent attacks in Sévaré, Bamako, Ouagadougou, and Grand-Bassam. This cell may have either procurement or personnel connections to combatants in Syria, even though its attacks were claimed by groups ostensibly allied with al-Qaeda rather than IS forces.

These findings merit further investigation as possible indicators of changing acquisition networks for Islamist armed groups operating in —and possibly between—the Sahel and the Middle East.

Table 7

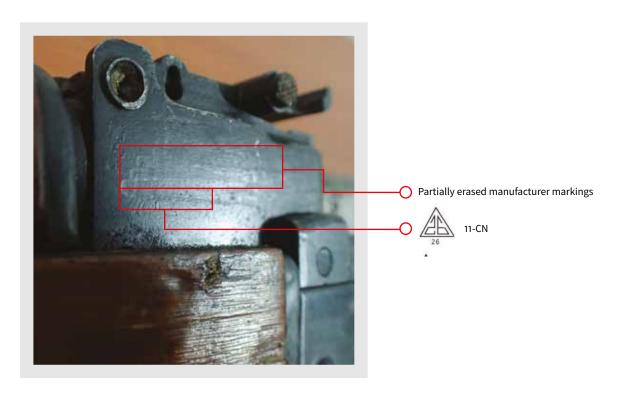
Type 56-1 Factory 26 rifles of 2011 manufacture (series '560XXXXX' serial numbers) with similarly erased rear-sight block markings documented in Mali and Syria, 2015

Serial number	Date documentated	Location	Country	Armed group claiming attack or possession?
56011258	Feb-15	Kobane, Aleppo Governorate	Syria	IS Forces
560XXXXX	Nov-15	Hôtel Radisson Blu, Bamako	Mali	Al-Mourabitoune
56037724	Feb-15	Kobane, Aleppo Governorate	Syria	IS Forces
560XXXXX	Aug-15	Hôtel Byblos, Sévaré	Mali	Al-Mourabitoune/ Force de libération du Macina
560XXXXX	Nov-15	Hôtel Radisson Blu, Bamako	Mali	Al-Mourabitoune

**Note:** CAR has the full serial numbers of all of these rifles but has only listed partial numbers for certain rifles in view of ongoing law enforcement investigations.

Sources: Conflict Armament Research; AFPTV

Figure 17
Type 56-1 assault rifle manufactured in 2011 and recovered after the attack on the Hôtel Byblos, Sévaré, Mali, 7 August 2015



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Figure 18
Type 56-1 assault rifle (2011 manufacture) seized by the YPG from IS after the battle of Kobane, Syria



Notes: This weapon was documented by CAR on 22 February 2015. © Conflict Armament Research

The al-Mourabitoune-aligned Front de libération du Macina, which has claimed responsibility for other recent attacks in the Mopti region of central Mali, and has also used rifles of Middle Eastern provenance. These include a Hungarian-manufactured AK63 bearing an Iraqi import mark, used in an attack in Tenenkou in January 2015.

It also used a 1987 Iraqi-manufactured Tabuk AKMS rifle—a type not previously documented in the sub-region—which Malian security forces recovered after an attack on a gendarme patrol close to Dialloubé on 19 January 2016. CAR is currently tracing these rifles with the assistance of manufacturing governments.

THESE CORRESPONDING SERIAL NUMBERS SUGGEST THAT CHINA MAY HAVE ORIGINALLY TRANSFERRED ALL THE TYPE 56-1 RIFLES USED IN THESE ATTACKS TO THE SAME LEGAL END USER, AND THAT ISLAMIST FIGHTERS RESPONSIBLE FOR THE WEST AFRICAN ATTACKS MAY SHARE A COMMON SOURCE OF SUPPLY WITH ISLAMIC STATE FORCES IN SYRIA.

The prevalence of weapons of Eastern European provenance in these recent attacks in the central/southern Sahel should not be overstated. For instance, a second rifle recovered after the Grand-Bassam attack in March 2016 bears a serial number matching a batch previously documented in both FAMa and Ivorian stockpiles (and also matching a rifle seized by the Nigerien security agencies following a confrontation with armed AQIM combatants in 2013). This match is not conclusive proof that the rifle originated in Malian or Ivoirian stocks, but unlike the 'Middle Eastern' rifles discussed above, it is not significantly different from the regionally prevalent small arms detailed in Section 3.

In addition, materiel of Middle Eastern provenance existed in the region prior to the spate of attacks that began in mid-2015. In mid-2014, for example, international forces recovered a crate of Polish armour-piercing PG-7M rounds from MNLA forces near Kidal. The Polish government confirmed to CAR that the rounds were likely supplied to the Polish peacekeeping contingent in Lebanon in the early 1990s and then transferred to the Lebanese authorities after the contingent's withdrawal. Since the Polish contingent withdrew from Lebanon in 2009, the appearance of this item among non-state actors in northern Mali suggests that it was trafficked from the Middle East to Mali in a relatively short period of time.

Figure 19
Polish-manufactured 7.62 x 39 mm ammunition with headstamp 21\_81



*Notes:* This type of ammunition was documented in use by Malian Garde Nationale personnel in northern Mali, August 2015. CAR has confirmed that ammunition with the same headstamp was used in the attack claimed by AQIM in Grand-Bassam, Côte d'Ivoire, in March 2016.

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# CONCLUSION

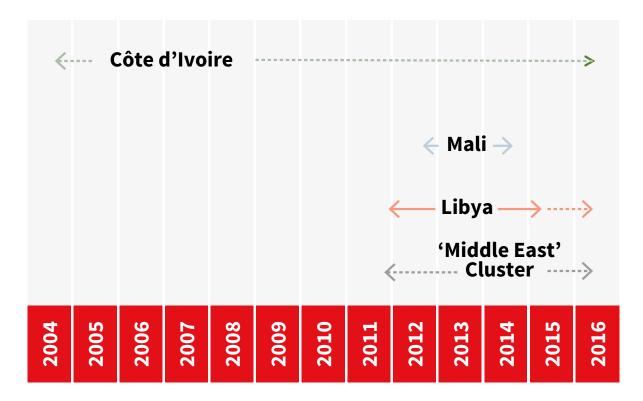
Evidence presented in this report indicates significant outflows of state-held weapons not only from Libya, but also from Côte d'Ivoire and Mali into the Sahel region. Flows of weapons and ammunition that are fuelling armed conflicts in this region can largely be traced back to the breakdown of physical stockpile security following state collapse or to the wholesale seizure of government arsenals by non-state actors as in Mali.

On a smaller scale, illicit weapons across the region have been diverted from poorly controlled security agency stockpiles in fragile states such as

Côte d'Ivoire, possibly over a longer period of time (see Figure 20).

In addition, since mid-2015 Islamist combatants responsible for unconventional attacks in the southern Sahel region have used much newer small arms that match those documented among Islamist combatants in Syria. These small arms cannot have entered the Sahel region before 2011, and since CAR did not document them in the region prior to mid-2015, they may have entered much more recently.

Figure 20
Time ranges of major weapon outflows from state stocks and other sources



*Notes:* Solid arrows represent confirmed time ranges when outflows were occurring; dotted arrows represent possible time ranges within which observed illicit weapons in the region could have left their respective national stocks.

WEAPONS AND AMMUNITION FUELLING ARMED CONFLICTS IN THIS REGION ORIGINATE PRIMARILY FROM THE BREAKDOWN OF PHYSICAL STOCKPILE SECURITY FOLLOWING STATE COLLAPSE OR FROM THE WHOLESALE SEIZURE OF GOVERNMENT STOCKS BY NON-STATE ACTORS.

What do these modalities and timings of weapon flows in the region mean for arms control efforts in the Sahel? The design of such interventions is beyond the scope of this report, but five key findings might influence the planning of these interventions:

 Outflows from state stockpiles other than those in Libya provide a significant proportion of the region's illicit weapons.

An exclusive policy focus on securing Libyan stockpiles, even if it were logistically or politically feasible, would not be sufficient. Physical security and stockpile management (PSSM) efforts elsewhere in the region—particularly in Côte d'Ivoire and Mali—remain important to curb and prevent regional trafficking.

2. Recent inflows into Libya are likely flowing out again within a matter of months, at least as far as Mali.

Controlling and interdicting these new inflows may be as important for regional stability as securing existing Libyan stockpiles.

3.Outflows from countries such as Mali have resulted not from inadequate stockpile management or piecemeal leakage from state stocks, but primarily from events when state control of a region has collapsed entirely and non-state groups have taken over the stocks of state security forces.

Better PSSM practices, although important, are unlikely to prevent such events.

4. The significant weapon outflows from Côte d'Ivoire detailed above could have taken place at any time since 2004. Further investigation is required to determine whether such outflows are still continuing.

The identification of small quantities of small arms ammunition of likely Ivorian state provenance used in attacks against Malian security forces in southern Mali during 2015 underlines the need for investigation of such leakages from state stockpiles. While the UN Mine Action Service and non-governmental organisations have successfully secured 40,000 tonnes of Ivorian state weapons and 40 per cent of state armouries since 2011,50 unaccounted Ivorian stockpiles represent a serious challenge. Particularly in northern Côte d'Ivoire, large volumes of light and heavy weapons and ammunition remain under the control of formally reintegrated, but semi-autonomous exrebel commanders, constituting potential points of diversion.51

5.CAR has not yet been able to attribute the weapons used in the spate of unconventional attacks by Islamist groups in the southwestern Sahel since mid-2015 to existing stockpiles in the region, in contrast to much of the weaponry used in armed violence in the region from 2011 to 2014.

Although it remains possible that these weapons derive from a Sahelian source that CAR has yet to document, their correspondence with weapons of Iraqi manufacture or originally in Iraqi state stocks, and with those documented in Syria in the hands of IS fighters further suggests that they may not be from the Sahel region. This inference emphasises the limits of PSSM as a means with which to combat Sahelian weapon trafficking and underscores the need to supplement PSSM efforts with intelligence-led tracking of trafficking networks, including those beyond the boundaries of the Sahel itself.

# **ENDNOTES**

- This is the case, for instance, for Polish assault rifles exported to Libya in the 1970s, a period for which Polish export records have not been preserved. Data is also unavailable for a range of Belgian ammunition exported to Libya in the 1960s and 1970s by Poudreries Réunies de Belgique SA, for which government export records do not exist and for which only partial records survive in the (now bankrupt) company's archives.
- Correspondence with the Government of Poland, 29 December 2015; UNSC (2013, para.
   62).
- 3 Documentation provided by Opération Barkhane.
- 4 CAR documentation, 2015.
- 5 Documentation from a confidential regional source.
- 6 See the discussion on Polish Kbk-AMNS rifles in Box 1.
- 7 See details of SA-7b tubes recovered from caches north-east of Gao in December 2014, (Table 2 and Figure 2).
- 8 Interviews with Opération Maliba personnel, Gao, September 2015; inspection of seized weapons in FAMa custody. Unfortunately, available records do not disaggregate seized weapons by location or date, nor do they identify the individual or group from which they were seized.
- 9 Interviews with international counter-IED personnel in Bamako and Gao, June 2015; documentation obtained by CAR from PRB archives, Belgium.
- 10 Interviews with local officials, Aouzou, Chad, November 2015.
- 11 Interviews with local residents, Tibesti, November and December 2015.

- 12 Brigades present in Ubari and Sebha have personal connections to both separatist and Islamist Tuareg-based groups in northern Mali. Mouvement national de libération de l'Azawad (MNLA) personnel move regularly between Kidal and Ubari/Sebha, including the MNLA's chief of staff, Mohamed Ag Najem, who was previously based in Sebha as a colonel in the Libyan Army. The leader of Ubari's Brigade 315, Cheikh Ahmed Omar al-Ansari, is reportedly a relative of the Ansar Dine leader lyad Ag Ghaly.
- 13 This reportedly includes a significant Tebou convoy from Sebha in May 2015 via Anefis and Aguelhok. A small number of mercenary Tebou fighters are allegedly present in MNLA ranks, particularly in the personal unit of Moussa Ag Nagem, brother of the MNLA chief of staff. CAR has not independently confirmed these claims (CAR interviews with MNLA combatants, location undisclosed, September 2015).
- 14 Interviews with MNLA and GATIA combatants, locations undisclosed, August and September 2015.
- 15 Interviews with combatants, locations undisclosed, August and September 2015.
- 16 For a summary, see UNSC (2016a, paras. 160–62).
- 17 Interviews with international counter-IED personnel, Bamako, June 2015. The shift should not be overstated: 122 mm 'GRAD' artillery rounds and 120 mm mortar rounds remain the dominant munitions for IED attacks in northern Mali and have been used as recently as September 2016.
- 18 Interviews with police officials and observations, Niamey, Niger, September and December 2015.
- 19 Interviews with FACA senior military intelligence officers, Bangui, July 2015. Other foreign forces deployed to the Central African

Republic to provide presidential protection include units from Chad, the Democratic Republic of the Congo, and South Africa; Chad in particular could have obtained Libyan weapons since its conflict with Libya began in the late 1970s.

- 20 Interviews with SLA-MM and JEM representatives in Sudan and Uganda, 2012– 14.
- 21 Interviews with Chadian authorities, Tibesti region, November–December 2015.
- 22 Interviews with Tebou community leaders, combatants, and traffickers, Tibesti region, November–December 2015. This control coincides with the Chadian government's long-standing preference for relying on local Tebou communities—and their traditional non-permeability to external influences—to maintain stability in northern Chad and to act as a bulwark against the possible southward expansion of the Libyan Islamists' sphere of influence.
- 23 Interviews with Chadian authorities, Tibesti region, November–December 2015.
- 24 Interviews with Tebou community leaders, combatants, traffickers and Chadian authorities, Tibesti region, November– December 2015.
- 25 Interviews with Chadian authorities, Tibesti region, November–December 2015.
- 26 For further details, see the reports of the UN Panel of Experts on Libya, since 2012.
- 27 On 29 June 2016, the Government of the Republic of Slovenia responded promptly to a formal trace request issued by CAR on 24 May 2016. In its response, the Government of the Republic of Slovenia stated that it delivered 132 M79 rockets with lot number TB8606 (the same lot number as the item documented by CAR) to the Slovak enduser Vojenský Opravárenský Podnik, Podnik 015, (with end user certificate number č. D502/0041, dated 14 February 2005) for demilitarisation. Slovenian authorities issued an export licence to the company Viator & Vector d.d, Ljubljana, Slovenia. The Vrankar d.o.o company shipped the consignment by road between 13 May 2005 and 9 August

2005, to the declared end-user in Slovakia. The Slovenian authorities cannot confirm that the item CAR documented was part of this shipment however, as the rounds were initially in the custody of the Yugoslavian Army, and therefore it is likely that another former Yugoslavian state retained items with the same lot number.

- 28 See, for instance, Small Arms Survey (2011).
- 29 Interviews with combatants and residents based in Tibesti, Kampala, and South Kordofan, 2012–15.
- 30 CAR weapon dataset from field observations in Darfur, South Kordofan, and Blue Nile states in Sudan; South Sudan (among equipment captured from or handed over by antigovernment rebel movements); the Central African Republic (in stockpiles recovered from former Séléka combatants); and Côte d'Ivoire (as part of materiel delivered in violation of the UN arms embargo), 2012–2016. See also Leff and LeBrun (2014).
- 31 See, for example, UNODC (2013, pp. 33–37). For a typical summary statement of this view of Sahelian weapon flows, see Richards (2016, p. 7).
- 32 Interviews with personnel from Opération Maliba, FAMa, Gao, September 2015.
- 33 Interviews with international personnel who were present in Kidal during May 2014, Bamako, June 2015. Members of the Coordination des mouvements et forces patriotiques de résistance, and members of the Mouvement arabe de l'Azawad section within of the pro-government Plateforme armed group coalition reported that they had seized four ex-FAMa BTR-60 armoured personnel carriers from MNLA forces in Anefis in August 2015; these claims have not been confirmed.
- 34 Photographs of weapon caches recovered by international forces north and east of Gao during December 2014 and January 2015; correspondence with the Government of Bulgaria, 8 June 2015.
- 35 The UN Panel of Experts on Libya in particular has reported that between four and six BM-21 122 mm rocket systems—the type that is most

- prevalent in the rocket attacks discussed here—entered Mali from Sebha in 2012, although it does not identify the transporters or intended users of these systems (UNSC, 2016a, p. 168).
- 36 Interviews with UN Multidimensional Integrated Stabilization Mission in Mali personnel, Bamako and Gao, June and September 2015.
- 37 This figure includes complete rockets recovered from caches or failed attacks and identifiable remnants of rockets recovered after attacks.
- 38 For a description of the idea of an 'isotope' weapon—a distinctive type, lot, or series of weapon potentially indicative of the provenance of an illicit shipment or cache—see Chivers (2012).
- 39 Observations of crates of Chinese Type 56-2 assault rifles in state stockpiles of an undisclosed East African country, October 2015; responses of the Chinese government to trace requests from the UN Panel of Experts on the Central African Republic regarding Type 56-2 assault rifles (UNSC, 2014, p. 122).
- 40 CAR documentation, Bangui, Bria, and Bambari, September 2014 and April 2015.
- 41 Confidential regional source.
- 42 Interviews, Bangui, July 2015.
- 43 CAR is currently investigating the onward commercial chain of custody of these telephones.
- On 7 September 2015, Toyota Motor
  Corporation responded promptly to a
  formal tracing request issued by CAR on 10
  August 2015. In its response, Toyota Motor
  Corporation confirmed the following: 1)
  the Toyota Land Cruiser with VIN number
  JTFLJ71J498017965, was delivered in
  September 2008 to Abdul Latif Jameel Import
  and Distribution Co. Ltd. (P.O. Box 248, Jeddah
  21411), Saudi Arabia; 2) the Toyota Land
  Cruiser with VIN number JTFLB71J388016673,
  was delivered in April 2008 to Abdul Latif
  Jameel Import and Distribution Co. Ltd.
  (P.O. Box 248, Jeddah 21412), Saudi Arabia;
  3) the Toyota Land Cruiser with VIN number

- JTELJ71J900012993, was delivered in February 2008 to Toyota Algerie S.P.A. (Lotissement Muchacho No. 2, Haut Site, D'Hydra 16035), Algeria; 4) the Toyota Land Cruiser with VIN number JTELJ71J300012732, was delivered in December 2007 to Toyota Algerie S.P.A. (Lotissement Muchacho No. 2, Haut Site, D'Hydra 16036), Algeria; 5) the Toyota Land Cruiser with VIN number JTFL711J448007414, was delivered in March 2004 to Saud Bahwan Automotive LLC (P.O. Box 3168, Ruwi, Postal Code 112), Oman and 6) none of the vehicles listed above were exported as part of a larger consignment.
- 45 Email correspondence with a source in Bamako, February 2016.
- 46 Toyota vehicles that were originally imported by this supplier have also been used by the Sudan Armed Forces in Darfur and South Kordofan.
- 47 Communication from Omani importer, 28
  December 2015. The Dubai-based purchaser is
  Tummo Trading LLC, which is directed by and
  49 per cent of which is controlled by Abed al
  Menzem Mohamed and Mohamed Shadi, both
  Libyan nationals. It is reasonable to assume
  that these individuals are the true owners
  of the company, since United Arab Emirates
  (UAE) company regulations require that a
  majority of the shares of a UAE-registered
  company be nominally owned by a UAE
  citizen.
- 48 CAR examination of weapons recovered from the Hôtel Byblos attack, Sévaré, 26 August 2015; footage of the forensic examination of weapons recovered from the Hôtel Radisson Blu attack, Bamako, 25 November 2015 (AFPTV, 2015).
- Malian armed forces personnel recovered this crate of PG-7M/7MW armour-piercing rocket-propelled grenades in a fighting position of the MNLA (Mouvement National de Liberation de Azawad) in Kidal, northern Mali, on 31 May 2014. On 29 December 2015, the Government of Poland responded to a formal trace request issued by CAR on 14 May 2015. This response stated that these grenades were produced in 1991 by Zakłady Sprzętu Precyzyjnego "Niewiadów", and that this crate was assigned to a unit of the Polish Army. The Government of Poland believes it is likely that in the early

1990s the crate was transferred to a Polish peacekeeping contingent in Lebanon, which they believe likely gave it to the Lebanese authorities when they withdrew. CAR continues to investigate its onward chain of custody.

- 50 Presentation by Pierre Lemelin, UN Mine Action Service Côte d'Ivoire, Lomé, 16 March 2016.
- 51 UN and international observers are particularly concerned about the large arsenal of light and heavy weapons held by the Fourth Infantry Battalion at Korhogo under the control of the sanctioned former Forces Nouvelles ComZone commander Martin Kouakou Fofié (email correspondence with UN officials, Abidjan, September 2015); details are reflected in UNSC (2016b).

## REFERENCES

AFPTV (Agence France-Presse TV). 2011. 'Attentats au Mali: les armes des assaillants en cours d'analyse.' 25 November. <a href="http://www.lemonde.fr/afrique/article/2015/11/25/bamako-les-enqueteurs-se-penchent-sur-les-kalachnikov-des-deux-terroristes\_4817198\_3212.html">http://www.lemonde.fr/afrique/article/2015/11/25/bamako-les-enqueteurs-se-penchent-sur-les-kalachnikov-des-deux-terroristes\_4817198\_3212.html</a>

Chivers, C.J. 2012. 'Following Up—The SAR-80: A Rifle and an Arms-trade "Isotope".' <a href="http://cjchivers.com/post/17247144974/following-up-the-sar-80-a-rifle-and-an">http://cjchivers.com/post/17247144974/following-up-the-sar-80-a-rifle-and-an</a>

— and Eric Schmitt. 2013. 'Saudis Step Up Help for Rebels in Syria with Croatian Arms.' The New York Times. 25 February. <a href="http://www.nytimes.com/2013/02/26/world/middleeast/">http://www.nytimes.com/2013/02/26/world/middleeast/</a> in-shift-saudis-are-said-to-arm-rebels-in-syria. html?pagewanted=all&\_r=1&>

EU (European Union). n.d. 'Ecosystèmes Fauniques du Nord-Est RCA (ECOFAUNE-RCA).' <eeas.europa.eu/archives/delegations/central\_ africa/projects/list\_of\_projects/21447\_fr.htm>

ICG (International Crisis Group). 2011. Holding Libya Together: Security Challenges after Qadhafi. Middle East/North Africa Report No. 115. <a href="http://old.crisisgroup.org/\_/media/Files/Middle%20">http://old.crisisgroup.org/\_/media/Files/Middle%20</a> East%20North%20Africa/North%20Africa/115%20 Holding%20Libya%20Together%20--%20 Security%20Challenges%20after%20Qadhafi.pdf>

Lacher, Wolfram. 2014. *Libya's Fractious South and Regional Instability*. Security Assessment in North Africa Dispatch No. 3. Geneva: Small Arms Survey. February. <a href="http://www.smallarmssurvey.org/fileadmin/docs/R-SANA/SANA-Dispatch3-Libyas-Fractuous-South.pdf">http://www.smallarmssurvey.org/fileadmin/docs/R-SANA/SANA-Dispatch3-Libyas-Fractuous-South.pdf</a>

Leff, Jonah and Emile LeBrun. 2014. Following the Thread: Arms and Ammunition Tracing in Sudan and South Sudan. Geneva: Small Arms Survey. <a href="http://www.smallarmssurveysudan.org/fileadmin/docs/working-papers/HSBA-WP32-Arms-Tracing.pdf">http://www.smallarmssurveysudan.org/fileadmin/docs/working-papers/HSBA-WP32-Arms-Tracing.pdf</a>

Richards, Joanne. 2016. *Matching Needs and Resources: Small Arms Control Initiatives in the Greater Sahel, 2015–2016.* Bonn: Bonn International Center for Conversion. 8 January. <a href="https://www.

bicc.de/uploads/tx\_bicctools/wp\_2\_2016\_0403. pdf>

Small Arms Survey. 2011. 'Turmoil in Libya and the Darfur Conflict.' Human Security Baseline Assessment Facts & Figures. Geneva: Small Arms Survey. April. <a href="http://www.cmi.no/file/?1235">http://www.cmi.no/file/?1235</a>>

UNODC (United Nations Office on Drugs and Crime). 2013. *Transnational Organized Crime in West Africa: A Threat Assessment*. February. <a href="http://www.unodc.org/documents/data-and-analysis/tocta/West\_Africa\_TOCTA\_2013\_EN.pdf">http://www.unodc.org/documents/data-and-analysis/tocta/West\_Africa\_TOCTA\_2013\_EN.pdf</a>

UNSC (United Nations Security Council). 2013. Final Report of the Group of Experts on Côte d'Ivoire Pursuant to Paragraph 16 of Security Council Resolution 2045 (2012). S/2013/228 of 17 April. <a href="http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s\_2013\_228.pdf">http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s\_2013\_228.pdf</a>

- —. 2014a. Final Report of the Panel of Experts Established Pursuant to Resolution 1973 (2011) Concerning Libya. S/2014/106 of 19 February. <a href="http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s\_2014\_106.pdf">http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s\_2014\_106.pdf</a>
- —. 2014b. Final Report of the UN Panel of Experts on the Central African Republic Established Pursuant to Security Council Resolution 2127 (2013). S/2014/762 of 29 October. <a href="http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s\_2014\_762">http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s\_2014\_762</a>. pdf>
- —. 2016a. Final Report of the Panel of Experts on Libya Established Pursuant to Resolution 1973 (2011). S/2016/209 of 9 March. <a href="http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s\_2016\_209">http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s\_2016\_209</a>. pdf>
- —. 2016b. Final Report of the Group of Experts on Côte d'Ivoire Pursuant to Paragraph 27 of Security Council Resolution 2219 (2015). S/2016/254 of 17 March. <a href="http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s\_2016\_254.pdf">http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s\_2016\_254.pdf</a>

