

Reaching for the gun

Arms flows and holdings in South Sudan

Since independence on 9 July 2011, South Sudan's political and military leaders have faced a growing number of armed conflicts both within and beyond their borders. Externally, proxy wars erupted in South Kordofan and Blue Nile states in June and September 2011, respectively; this followed the Sudan Armed Forces' (SAF) occupation of Abyei in May, resulting in armed conflict along much of the shared border with Sudan, including direct fighting around Heglig in late March 2012. Inside South Sudan, a growing number of well-armed insurgent commanders launched rebellions against the Southern government and army in 2010 and 2011, destabilizing large parts of the Greater Upper Nile region.¹ Simultaneously, conflict between the Lou Nuer and Murle has exploded into the worst 'inter-tribal' armed violence in years.

Steady supplies of small arms and light weapons to all parties are fuelling these conflicts, threatening to extend and prolong them significantly. Since independence, official bans on materiel acquisitions by the Government of South Sudan (GoSS) have been lifted and the government is exploring expanded defence contracts with a number of interested states. At the same time, an increasing number of non-state actors in South Sudan, including tribal groups and rebel militia groups, are acquiring weapons illicitly at what appear to be increasingly rapid rates. As the demand for weapons in South Sudan grows, external actors are meeting supply needs.

This *Issue Brief* reviews arms flows and holdings among both state and non-state armed forces as of early 2012,

situating recent developments against historical trends and patterns of supply. It updates a previous HSBA report on small arms and light weapons flows and holdings in Sudan from December 2009.² Key findings include:

- In 2010–11 the Sudan People's Liberation Army (SPLA) acquired large quantities of small arms and light weapons and their ammunition, 10 Russian-manufactured Mi-17 transport helicopters, as well as final deliveries of 33 T-72 battle tanks that were delivered to Mombasa Port, Kenya, in February 2009.
- Ukraine has been South Sudan's principal supplier of weapons since 2005. Kenya and Uganda have been used as transshipment points for onward delivery to South Sudan.
- From November 2010 to May 2011, the South Sudan Police Service (SSPS) marked 41,200 firearms distributed among various official security forces, permitting it to trace a number of firearms that leaked out of state control to non-state actors. The SPLA would benefit from similarly marking its weapons.
- South Sudanese rebel militia groups are well equipped with both small and large calibre small arms and light weapons. Analysis of captured materiel reveals that they have consistent access to new weapons from SAF and, to a lesser degree, from the SPLA, and a number of governments both inside and outside the region.
- Although the SPLA and the Sudan People's Liberation Army-North (SPLA-N) officially separated in July 2011, military and logistical

cooperation and collaboration between the two forces continues.

The first section of this *Issue Brief* examines arms acquisitions and transfers to the SPLA and SSPS based on available public documentation and independent investigations. The second section reviews the patterns of materiel supply to, and holdings of, rebel and tribal militia groups, based on fieldwork and weapons tracing techniques to determine the chain of custody of illicit arms and ammunition.

State force acquisitions and holdings

Documented imports

South Sudan's arms imports are driven overwhelmingly by the needs of the SPLA. With an estimated 210,000 personnel,³ the army is more than twice the size of all other security services combined. Based on interviews with experts, the Small Arms Survey estimates the army may hold some 250,000 small arms and light weapons, though this is impossible to confirm (see Table 1).⁴ Despite the CPA's restrictions on arms acquisitions (see Box 1), the SPLA has made significant purchases in an effort to upgrade its military strength, and began a military procurement programme in mid-2006.⁵ The army's chief priority with regard to weapons procurement is enhancing its air-defence capabilities to defend the border region with Sudan.⁶

Alongside public statements that it will disarm and demobilize roughly half of its force by 2017,⁷ the SPLA continues to acquire weapons and

Box 1 Changing rules: state-to-state transfers

During the Comprehensive Peace Agreement's (CPA) interim period (2005–11), the South Sudanese government was technically prohibited from acquiring weapons without the approval of the Joint Defence Board (JDB), a CPA-mandated body that included equal numbers of SPLA and SAF representatives. Recognizing that the SAF members would veto any request for arms purchases, the SPLA never sought permission to pursue arms purchases.⁸ Instead, weapons imports were conducted covertly. When shipments were exposed, South Sudanese officials denied the facts, pointing to the wide disparity in weapons holdings between the SPLA and SAF, or claimed the legitimate need to professionalize the SPLA.⁹ With the expiration of the CPA in July 2011, the JDB—and its non-existent arms controls—dissolved.

More significant than the CPA's mechanisms were voluntary prohibitions on arms transfers to Sudan adopted by exporters, notably the United States (US) and the European Union (EU)—both important donors and partners. As early as 1992, the US banned exports of defence articles to Sudan.¹⁰ In 1997, US President Bill Clinton issued an executive order banning the transfer of lethal military equipment to Sudan—which then also covered South Sudan—citing Khartoum's 'support for international terrorism; ongoing efforts to destabilize neighbouring governments; and the prevalence of human rights violations' and calling Sudan 'an unusual and extraordinary threat to the national security and foreign policy of the United States' and 'a national emergency.'¹¹

In January 2012, President Barack Obama lifted the ban on defence articles and services to South Sudan, stating that this would 'strengthen the security of the United States and promote world peace.'¹² US State Department officials indicated that the government was in discussions with the South Sudanese about assistance for 'securing their borders and defending themselves', but that the US had no immediate plans to approve the transfer of lethal equipment.¹³

In March 1994, the EU established an embargo prohibiting EU nationals from supplying to Sudan 'weapons designed to kill and their ammunition, weapon platforms, non-weapon platforms and ancillary equipment'. The embargo, strengthened in 2004, also applies to spare parts, repair, maintenance, and transfer of military technology.¹⁴ Unlike the United Nations embargo,¹⁵ passed in 2004, the EU embargo did not specify what areas or parties of Sudan were off limits to exporters—it thus covered transfers to both state- and non-state actors in all areas of the country, including the South.

The EU arms embargo remains the only legal prohibition on arms sales to South Sudan. Southern secession did not lead the EU to revise export restrictions. In fact, within two weeks of South Sudan's independence, the EU revised the embargo to explicitly include the new country. The list of prohibited articles was also expanded: the new Article 4, in addition to a ban on arms and ammunition sales, prohibits the supply of 'military vehicles and equipment, paramilitary equipment and spare parts'.¹⁶ The supply of non-lethal military equipment is exempt from the ban.

Both the US and the EU have responded to South Sudanese independence by authorizing the supply of non-lethal defence assistance. But whereas the EU has explicitly banned arms exports, the US has opened the door to potential future transfers of military equipment. These divergent responses go to the heart of the challenges of supporting security in the fledgling republic.

Uganda.²⁰ The most widely reported case is the consignment of tanks, small arms and light weapons, and ammunition aboard the MV Faina that was shipped from Ukraine to Mombasa in 2008 (see Box 2).²¹ The Small Arms Survey has identified three contracts during 2006–08 with Ukrainian state-owned 'SSSFTF Ukrimash' for the sale of ZU-23-2 (23 mm) and ZPU-4 (14.5 mm) anti-aircraft guns, BM-21 'Grad' 122 mm multiple-launch rocket systems, RPG-7Vs, tens of thousands of AKM assault rifles, T-72 main battle tanks, and thousands of rounds of ammunition.²²

In addition to Kenya, other countries in the region have played important active or supporting roles in bringing arms into South Sudan. Ethiopia has been a significant covert source of weapons for the SPLA.²³ In 2008 Ethiopia reportedly supplied four shipments of military equipment to South Sudan within a six-month period.²⁴ A large consignment of small arms ammunition reportedly followed in May 2011.²⁵ Uganda has served as an overland transit point for arms deliveries; and flights originating in Entebbe reportedly land in Juba on a regular basis carrying military equipment.²⁶

Beyond these regional partnerships and cooperative relationships, individuals and companies in Europe have offered brokering services for the supply of weapons to South Sudan in violation of the EU arms embargo.²⁷ In September 2011, eight individuals—four of them former employees of the Military Technical Institute of Belgrade—were arrested in Belgrade for allegedly attempting to sell precision mortar guidance systems to South Sudan for USD 2 million.²⁸ One of the individuals implicated in the case, Dorde Tesic, is a relative of Serbian arms dealer, Slobodan Tesic, who is accused of trafficking arms to Yemen, Liberia, and Sierra Leone. The suspects remain in Serbia awaiting trial.²⁹

In May 2007 South Sudan negotiated a contract worth USD 75 million for the purchase of nine Mi-17V-5 transport helicopters and one Mi-172 variant for VIP transport from Russia's Kazan Helicopters. The first batch

military equipment through various channels with a view to upgrading its capabilities. The types, quantities, and scale of the new military acquisitions are however difficult to quantify for a number of reasons. First, it may be some time before South Sudan begins reporting on its arms imports to the trade databases that capture small arms and light weapons transfers, such as the UN Register of Conventional Arms and the UN Commodity Trade Statistics Database. Nor have exporters begun recording transfers.

Second, the SPLA is unlikely to have a coherent arms procurement strategy given its highly decentralized structure and the challenges it faces improving its supply chain.¹⁷ Further, it is difficult for the army to make informed decisions about its forces' materiel needs because it does not maintain a comprehensive inventory of its weapons. Arms purchases are

uncoordinated and ad hoc, usually conducted through independent brokers and middlemen in Juba hotels, sometimes at the behest of senior SPLA officials.¹⁸

During the CPA period, Ukraine was the most prolific exporter of small arms and light weapons (as well as tanks and other large conventional weapons) to South Sudan. Kenya colluded with Ukraine to keep the transfers covert. In 2009 the Small Arms Survey reported that Ukraine was a regular source of weapons for the SPLA,¹⁹ based on witness statements, cargo manifests, photographic evidence, and interviews with security experts. A US cable dated 2 October 2008 has since confirmed how the Kenyan Ministry of Defence assisted South Sudan in obtaining Ukrainian-sourced arms. The shipments were off-loaded in Mombasa and transported overland to South Sudan through

Box 2 Update on the MV Faina delivery

On 25 September 2008, the MV Faina was hijacked by Somali pirates while en route from Ukraine to the Kenyan port of Mombasa. On board were 33 Russian-manufactured T-72 main battle tanks, 150 RPG-7 launchers, six anti-aircraft guns, and thousands of tonnes of small arms ammunition. After months of negotiations the cargo was released and delivered to Mombasa, where it arrived on 12 February 2009. According to the cargo manifest, the Kenyan Ministry of Defence was the consignee, but the contract clearly listed South Sudan as the recipient.³⁰ The transfer violated the CPA, and GoSS officials denied that the weapons were destined for its forces.³¹

Leaked US diplomatic cables confirm that the tanks were intended for South Sudan, however. In a diplomatic cable dated 29 July 2009, GoSS Minister for Regional Cooperation and former SPLA Chief of General Staff Oyai Deng Ajak admitted that they had been pressing Kenyan Foreign Minister Moses Wetangula 'on the need to expedite delivery to South Sudan of tanks off-loaded from the MV Faina.' The cable states that Ajak confirmed that 'weapons, armaments, and spare parts and support packages for the T-72 tanks' had been delivered to an undisclosed location in South Sudan.³²

Segments of the consignment have been delivered to South Sudan since mid-2009. Satellite imagery has shown that an initial shipment of T-72 tanks arrived at an SPLA facility Juba in May 2009.³³ In September 2011, 20 T-72 tanks were spotted being transported on the road from Nimule—a town bordering Uganda—toward Juba, and in November at least 12 T-72 tanks were parked next to SPLA barracks just outside Juba on the road from Uganda.³⁴ By late November 2011, the last remaining T-72 tanks from the MV Faina had been delivered.³⁵ Most of them have since been deployed in Mayom, Unity state, less than 100 km from South Kordofan.



T-72 tank photographed in Unity state near the border with Abyei, June 2011. Confidential source.

arrived in Entebbe for transfer in August 2010.³⁶ In February 2012, the Small Arms Survey observed all 10 helicopters in Juba. The helicopters can be equipped with machine guns and rocket pads, and can transport bombs weighing up to 500 kg. For now, however, they only fulfil a transport and reconnaissance role.³⁷

Anticipated procurement

Freed from the need to hide its imports, South Sudan is certain to expand its military holdings through purchases on the global arms market. At least three partners are likely to contribute.

The United States. Since 2006, the US has been a key supporter of South Sudan's defence transformation programmes, with estimated investments of USD 150–300 million.³⁸ In August 2009, US Department of Defense (DoD) spokeswoman Lt. Colonel Almarah Belk said, 'professional military education and training for officers and enlisted personnel is one key aspect; an air defence capability might be relevant.'³⁹ Since independence, the US government has indicated that, while it has no immediate plans to export lethal equipment, it will consider exports of defence articles on a case-by-case basis.⁴⁰

Russia. Russia has expressed interest in enhancing military trade relations with South Sudan. Only three days after representatives from the US DoD met with the SPLA in October 2011, a delegation from the Russian Federal State Unitary Enterprise, or Rosoboroneport, met with President Salva Kiir in Juba to discuss military co-operation between the two states. The deputy director general of Rosoboroneport, Alexander Mischeev, then delivered a televised statement on South Sudan TV, stating that Russia was prepared to increase support for building South Sudan's defence capacity.⁴¹ Russia is also a significant supplier of weapons to Sudan. In 2003–04, for example, it delivered 12 Mig-29 fighter/ground attack aircraft to Khartoum.⁴² It is unclear at this stage whether expanded military relations with South Sudan represent a shift in Russia's policy on Sudan. Like Ukraine, Russia may continue to supply both countries out of pure economic interest.

China. A good portion of the SPLA's ammunition is of Chinese origin, but it is unclear whether this has been acquired directly from China or from third parties. However, the Small Arms Survey has documented large quantities of new Chinese-manufactured ammunition in SPLA stocks, indicating recent procurement and import. Dozens of Chinese manufactured 12.7×108 mm cartridges with factory mark 41, produced in 2009, were observed alongside SPLA tank tracks in Kaldak Payam, Jonglei, after fighting between the SPLA and the forces of Gabriel Tang Gatwich Chan ('Tang-Ginye') on 23 April 2011.⁴³ In October 2011, the Small Arms Survey also viewed ammunition crates stored in marine cargo containers holding hundreds of thousands of rounds of newly purchased Chinese 7.62 and 12.7 mm ammunition.

China has pledged 'full cooperation' with South Sudan.⁴⁴ It is too early to tell whether the post-CPA reapportionment of the country's oil resources, which has shifted much of the ownership of the oil fields from Sudan to

South Sudan, will translate into Chinese defence support to South Sudan.⁴⁵

Security service weapons

When the SSPS was established in 2005 to eventually take over the role of internal security, it was composed of former police from SAF-held towns in South Sudan, SPLA soldiers who were seconded for police service, and demobilized SPLA. Seven years later the force remains under-trained and insufficiently funded, and operates in a secondary position to the SPLA as a security provider, despite clear divisions of duties outlined in the 2008 SPLA White Paper on Defence.⁴⁶

The total size of the SSPS is estimated at 50,000 men, many of whom are approaching retirement age.⁴⁷ Roughly a third of recruits brought their own weapons with them from the SPLA, and the police arsenal has been increased in the last two years by new procurement and imports. By early 2012, the force had roughly one weapon per officer, yet the majority of these have not been distributed or are in storage in Juba.⁴⁸

The first known procurement of weapons destined for the police—a consignment of Russian-manufactured AKM assault rifles from Ukraine, ordered by the Ministry of Interior (MoI)—arrived in 2010.⁴⁹ Of the 40,500 weapons delivered, 30,300 were destined for the police, with the remainder going to other official security forces. Between November 2010 and May

2011 the force—with the support of the Nairobi-based Regional Centre on Small Arms and the South Sudan Bureau for Community Security and Small Arms Control (BCSSAC)—marked the rifles with codes corresponding to each state’s police unit, and recorded them in a centralized database.⁵⁰ The SSPS marked an additional 700 rifles that had been in storage at police posts throughout Central Equatoria state. The marking initiative allows the SSPS to better account for its weapons. Since it began, police rifles have been recovered from non-state actors, resulting in successful SSPS tracing investigations. Pending adequate funding, the BCSSAC and SSPS plan to conduct marking for other state-level police stocks.

Of the AKM rifles received from Ukraine, the SSPS has distributed 1,000 to each of the 10 state police headquarters. The MoI supplied 4,000 to the Wildlife Service, 4,000 to the Prison Service, 2,000 to the Fire Brigade, and another 200 to Customs (see Table 1). More than 20,000 remain stored at SSPS headquarters in Juba.⁵¹

Acquisitions and holdings among non-state groups

Sudan and South Sudan have long been home to a range of non-state actors actively seeking small arms and light weapons to promote their causes. For almost 40 years of internal conflict, a number of countries, primarily within

the Horn of Africa, have been eager to arm them. Over the past decades, Ethiopia and Uganda provided material support to the SPLA; Eritrea supported the rebel Eastern Front; and Chad and Libya armed a number of Darfur rebel groups.⁵³ In the past, the Sudanese government and SAF have maintained long-standing relationships with armed forces fighting against the SPLA and South Sudanese government. These included both Sudanese forces and groups originating outside the country, such as the Ugandan Lord’s Resistance Army (LRA).⁵⁴

With South Sudan’s independence, non-state armed group activity has increased dramatically and, with it, proxy arming. A number of factors suggest why. First, the end of the CPA period led to a number of rebel commanders, who had taken a ‘wait and see’ stance since 2005, finally declaring their opposition to the Juba government. In the 12 months preceding independence, four rebellions erupted in South Sudan, all of which were heavily armed—including with support from Khartoum. Second, in anticipation of a possible armed confrontation between SAF and elements of SPLA-North, the SPLA moved arms and forces across its border to South Kordofan and Blue Nile before independence and is continuing to support rebellions there (see Box 3). Third, chronic inter-tribal conflict intensified, in particular with fighting between the armed wings of the Lou Nuer and Murle in Jonglei state.

This section reviews what is known about the supplies and holdings of a selection of non-state armed groups operating in South Sudan as of early 2012.

Rebel militia groups

Over the last two years, as more Southern rebel commanders and their followers have declared rebellions and increased collaboration, newer and more sophisticated weapons have increasingly flowed into rebel hands in South Sudan. Some of these have been acquired from the South Sudanese state: many militia members are ex-SPLA who took their weapons with them when they defected. Others have

Table 1 **Estimated force strengths and arms holdings among South Sudanese forces**

Category	Strength	Estimated small arms holdings	Notes
SPLA	210,000 ⁵²	250,000	Includes some 177,000 soldiers at independence as well as newly integrated JIUs and former rebel forces
SSPS	50,000	50,000	Only 31,000 firearms registered with SSPS
Prison Service	22,000	6,000	Received 4,000 AKM rifles
Wildlife Service	14,000	9,000	Received 4,000 AKM rifles
Fire Brigade	4,000	2,000	Received 2,000 AKM rifles
Customs	Unconfirmed	200	Received 200 AKM rifles
Totals	300,000	317,200	

Note: Force strength and weapons holding estimates are based on fieldwork and key informant interviews conducted by the Small Arms Survey November 2011–February 2012.

Box 3 Outflows from South Sudan: Support to the SPLA-N

Until the independence of South Sudan on 9 July 2011, the SPLM/A and the Sudan People's Liberation Movement/Army-North (SPLM/A-N) were a unified political and military force. In February 2011, the SPLM announced it would split into two parties with a resulting split in the army and separate command structures and leaderships, effective the day before independence.⁵⁵ Evidence suggests that the two forces remain in close collaboration in the current conflicts in South Kordofan and Blue Nile, despite official denials.

In March and May 2011, prior to hostilities with SAF, personnel from the SPLA's 9th (South Kordofan) and 10th (Blue Nile) Divisions—reportedly some 20,000 men—moved T-55 and T-72 tanks, 120 mm Howitzers, and 120 mm mortars as well as quantities of small arms and light weapons and ammunition north in anticipation of conflict.⁵⁶ The forces remained there under the leadership of SPLM loyalists Abdul Aziz al Hilu and Malik Agar.

Fighting erupted in South Kordofan in June and in Blue Nile in September.⁵⁷ Amid reports of ethnic cleansing and crimes against humanity by SAF, the Southern government has continued to provide logistical and military support to its northern counterparts. SPLA-N high-level commanders, including Agar, are frequently seen in Juba. In October 2011, former elements from the 9th and 10th Divisions were reportedly in Juba collecting payment, although the SPLA insists that these forces have been taken off the official salary lists.⁵⁸ As of the end of 2011, knowledgeable sources reported that six of the ten SPLA divisions were directly involved in fighting or supplying weapons across the border to the SPLA-N.⁵⁹

The military equation has changed significantly in recent months with the establishment of the Sudan Revolutionary Front (SRF) in November 2011, chaired by Agar and commanded by Abdul Aziz. The alliance brings together a number of rebel forces fighting for a 'viable democratic alternative' to the government in Khartoum, including the SPLA-N and three Darfur armed opposition groups: the Justice and Equality Movement (JEM); and the Sudan Liberation Movement factions of Minni Minawi and Abdul Wahid. Evidence, particularly from Unity state, suggests that elements within the SPLA are in contact and cooperating militarily with SPLA-N, JEM, and by extension other members of the SRF.⁶⁰ In February and March 2012, the SPLA and members of the SRF separately claimed credit for the same military actions on two occasions, strongly suggesting that they are acting in unison: the first time related to fighting around Jau and Tarogi (late February) and the second time related to the shooting down of an unmanned Iranian/SAF plane in South Kordofan on 13 March.⁶¹

While it is possible that Juba may not be in control of the movement of forces across the Sudan-South Sudan border, one thing is clear: the split that is supposed to have occurred in the SPLA has yet to take place on the ground.

with fighting between the two sides through November 2011 and again in March 2012 resulting in hundreds of casualties.⁶⁶

Although the Small Arms Survey has not documented any SSLM/A weapons in the post-Gadet period, commanders have reportedly said that they are receiving weapons from security elements in Sudan.⁶⁷ Anecdotal evidence also suggests that they are well equipped; the SSLA itself claims to have enough arms to last two to three years. Moreover, Bapiny Monytil told the Small Arms Survey in December 2011 that the SSLM/A had recently purchased 10 SA-7 surface-to-air missiles from an undisclosed country, but this has not been independently verified.⁶⁸ In addition to the use of small arms, SSLA fighters have laid anti-tank mines on roads frequently travelled by the SPLA, resulting in civilian casualties.

South Sudan Democratic Movement/Army (SSDM/A). The SSDM/A is an inter-tribal rebel movement located in Jonglei and Upper Nile states. It was established by the late George Athor after he resigned in protest from the SPLA in the run-up to the April 2010 elections. Athor built his force with SPLA defectors from the 8th Division in Jonglei and the 3rd Division in Northern Bahr al Ghazal. Athor's ability to acquire weapons enabled him to recruit disenfranchised youths—primarily from the Gawaar Nuer and Padeng Dinka tribes—to fight against his SPLA adversaries in Jonglei, with mixed success.⁶⁹

The SPLA reportedly killed Athor on 19 December 2011,⁷⁰ and he was succeeded on 5 January by Peter Kuol Chol Awan.⁷¹ In late February 2012, Awan defected to the SPLM. As of April 2012, there were about 1,800 armed SSDM/A fighters in northern Jonglei awaiting plans for integration from their leaders, who were conducting negotiations with the Juba government.⁷²

Since Awan's defection, a separate and smaller faction of the force, still active in Upper Nile state, assumed the SSDM/A title. In northern Upper Nile, Maj. Gen. Johnson Olonyi leads a predominantly Shilluk cadre of about 800 fighters.⁷³ It has not been possible to assess the type or quantity

been captured from the SPLA in battle. Newer weapons include larger calibre weapons such as 12.7 mm heavy machine guns, 60 and 82 mm mortars, and recoilless rifles such as the SPG-9 and B-10, and their ammunition. They are often in mint condition—which has never been seen before in South Sudan and indicates fresh supply lines—and supplement existing arsenals, consisting mainly of various types of assault rifles, RPK and PKM general-purpose machine guns, RPGs, and landmines.

The most prominent rebel militia groups as of April 2012 are the South Sudan Liberation Movement/Army and the South Sudan Democratic Movement/Army, which have both evolved since their inception. Each is described briefly below.

South Sudan Liberation Movement/Army (SSLM/A). The SSLM/A is a predominantly Nuer militia in Unity state under the leadership of James Gai Yoach. He has four deputies—Bapiny Monytil, Kolchara Nyang,

Matthew Puljang, and Philip Bepean—who oversee different parts of the movement.⁶² Since Peter Gadet—the founder and once military leader of the SSLM/A—officially defected on 3 August 2011, estimates have varied regarding the force's size.

The SSLA claims to have a staggering 8,000–12,000 soldiers,⁶³ but security analysts estimate their force numbered about 1,800 in November 2011. Since the majority of its forces relocated to Kharasana—about 40 km north of Abyei—at the end of 2011, the SSLA is believed to have grown in size.⁶⁴ In addition to local recruitment, there are credible reports of Khartoum-based SSLA officials forcibly conscripting young South Sudanese men on the streets of Khartoum, and sending them south for training.⁶⁵ Since its inception, the SSLA has inflicted significant damage on the SPLA's 4th Division. Although casualty figures announced by the SPLA and SSLM/A differ significantly, the SSLM/A currently represents the greatest internal threat to the SPLA,

of weapons this faction possesses, but based on interviews, it is estimated that the entire force has about one weapon per soldier.⁷⁴

The Small Arms Survey has documented and analyzed hundreds of arms and thousands of rounds of ammunition that the SPLA says it seized from various militia groups between March and December 2011. Weapons tracing techniques⁷⁵ have established a number of shared suppliers and supply routes

(see Table 2 and Figure). Evidence from fieldwork tends to support the claims by associates of top dissident commanders—most notably Gadet, the late Athor, and Yau Yau—that the Sudanese security apparatus is the primary source of weapons to rebel militias in South Sudan.

During the peak of his conflict with the SPLA in April-May 2011, Gadet and his inner circle spent most of their time in Khartoum. His spokesman, Bol Gatkuoth, confirmed that Khartoum

not only funded Gadet's insurgency, but was one of several sources of arms and ammunition.⁷⁹ Weapons reportedly captured from Gadet's forces and viewed by the Small Arms Survey indicate, based on commonalities with observed SAF stocks, that Sudanese supply lines appear to have included assault rifles, machine guns, RPGs, mortars, and ammunition.

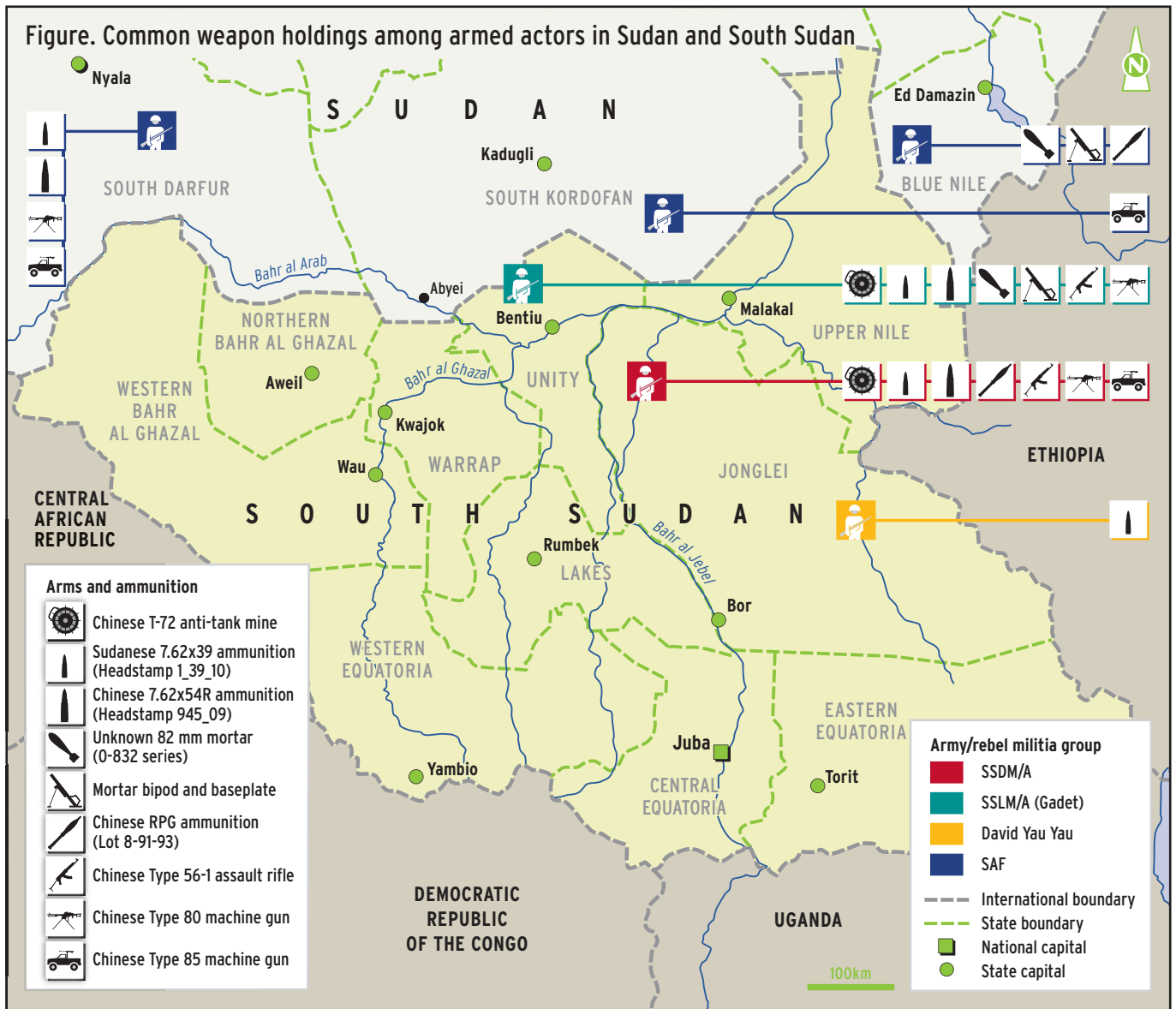
Prior to his death in December 2011, Athor also maintained close ties with his supporters in Sudan. Several senior officials, including Athor himself, were frequently in Khartoum collaborating with the government on strategy and, apparently, materiel support. On 8 August 2010, for example, a helicopter landed in Fulug airport in Upper Nile after allegedly returning from Fangak county—an Athor stronghold—carrying a group of his loyalists, including his third-in-command, on its way to Khartoum. After the SPLA detained Athor's men and the helicopter crew, they reportedly admitted that the helicopter had delivered arms to Athor prior to arrival at Fulug.⁸⁰ The SPLA said that the helicopter belonged to Sudan Airways, which an international observer later confirmed.⁸¹

There are several possible means of bringing weapons to militias, including deliveries by land and air directly from Khartoum, supplies from local SAF commanders in militia rear bases in South Kordofan and Blue Nile, sales from Missiriya traders in South Kordofan who receive weapons from SAF, and deliveries from third parties in the region, most notably Eritrea, and beyond. Regardless of the supply method and route, the type and condition of weapons, the correlation between militia and SAF stocks, claims from current and former senior rebel representatives, and the fact that China and Iran are Sudan's top two exporters of weapons, all point to Sudan as a significant supplier of arms and ammunition to at least the SSDA and SSLA. There are also similarities between weapons and ammunition being used by the rebel groups, such as brand new Type 56-1 assault weapons with similar serial numbers and Type 80 machine guns and similar Chinese-made ammunition (see Table 3).

Table 2 Types of small arms and light weapons held by selected Southern armed actors

GoSS forces	Types of small arms and light weapons ⁷⁶
SPLA	<ul style="list-style-type: none"> ■ Pistols ■ Tavor assault rifles ■ Scorpion sub-machine guns ■ Kalashnikov-pattern assault rifles ■ RPK and PKM general-purpose machine guns ■ Grenade launchers ■ Recoilless rifles (various calibre) ■ 12.7 mm heavy machine guns ■ RPG-7 anti-tank weapons ■ 60, 82, and 120 mm mortars ■ 23 mm anti-aircraft guns ■ Man-portable air-defence systems
SSPS	<ul style="list-style-type: none"> ■ Pistols ■ Kalashnikov-pattern assault rifles
Prison Service, Wildlife Service, Fire Brigade, and Customs	<ul style="list-style-type: none"> ■ Kalashnikov-pattern assault rifles
Non-state groups	Types of weapons ⁷⁷
SSDA	<ul style="list-style-type: none"> ■ Kalashnikov-pattern assault rifles ■ RPK and PKM general-purpose machine guns ■ 12.7 mm heavy machine guns ■ RPG-7 anti-tank weapons ■ SPG-9 recoilless rifle ■ 60 and 82 mm mortars ■ ZSU-37 anti-aircraft guns (not verified) ■ BM-12 107 mm multiple rocket launchers (not verified)
SSLA	<ul style="list-style-type: none"> ■ Kalashnikov-pattern assault rifles ■ RPK and PKM general-purpose machine guns ■ 12.7 mm heavy machine guns ■ RPG-7 and RPG-9 anti-tank weapons ■ 60 and 82 mm mortars ■ B-10 recoilless rifles ■ Man-portable air-defence systems (not verified)
LRA	<ul style="list-style-type: none"> ■ Kalashnikov-pattern assault rifles ■ RPK and PKM general-purpose machine guns
Nuer 'White Army'	<ul style="list-style-type: none"> ■ Kalashnikov-pattern assault rifles ■ RPK and PKM general-purpose machine guns ■ RPG-7 anti-tank weapons
Civilians ⁷⁸	<ul style="list-style-type: none"> ■ Kalashnikov-pattern assault rifles ■ G3 assault rifles ■ SKS assault rifles ■ RPD assault rifles ■ RPG-7 anti-tank weapons ■ 60mm mortar ■ RPK and PKM general-purpose machine guns

Figure. Common weapon holdings among armed actors in Sudan and South Sudan



In addition to Khartoum, Asmara is emerging as a likely source or intermediary for weapons supplied to Southern rebels. As noted in Table 2, the SPLA confiscated a Chinese-manufactured Type 69 RPG round with lot number '8_91_93' from Athor's forces in Jonglei in February 2011. Eritrea reportedly supplied identical rounds, bearing the same lot number, which were seized from Ogaden National Liberation Front (ONLF) forces in Somalia in September 2010. Athor reportedly visited Asmara at least three times in 2010-11.⁸² Reports also emerged from Jonglei alleging that he purchased arms from a Nuer named Thokwath Pal Chai, leader of the Asmara-supported Ethiopian United Patriotic Front in the area of Gambella, Ethiopia.⁸³ There is no independent confirmation of this.

Credible sources report that Eritrea has supplied weapons direct to the SSDA.⁸⁴ While the Small Arms Survey has not been able to confirm this, the correlation between the two samples of RPG rounds strongly suggests a common source. Other sources, such as the SPLA, are apparent. In one example, a number of Nuer SPLA from Warrap state were deployed to fight in Unity and Upper Nile states in 2011 but once in situ decided they did not want to fight, and could not find their way home. With few alternatives, they enlisted SSLA soldiers to guide them through swamplands in exchange for their weapons.⁸⁵ Ukraine may also be a source: SSLA Deputy Commander, Bapiny, told the Small Arms Survey in December 2011 that the SSLA has representatives who travel there to purchase weapons.⁸⁶

'Tribal' militia groups

In 2011, chronic inter-tribal competition and raiding exploded into open conflict in Jonglei state between the Murle and a reconstituted Nuer 'White Army', a tribal militia made up of three Nuer clans—Lou, Jikany, and Gawaar.⁸⁷ A Council of Churches-led peace process has not achieved an end to hostilities. The conflict received international attention at the end of December when up to 8,000 Nuer youths marched into Pibor county to attack the Murle, and reportedly to recover dozens of abducted children and thousands of cattle stolen in August.⁸⁸ The fighters were armed with about 4,000 Kalashnikov-pattern assault rifles, RPGs, and PKM-type machine guns.⁸⁹ The SPLA and the UN Mission in South Sudan (UNMISS) sent reinforcements to Pibor to repel the attackers, but

Table 3 Types and likely sources of weapons and ammunition among Southern militias

Weapon type/model/quantity	Militia	Captured / observed	Likely source	Comments
125 new Chinese-made Type 56-1 assault rifles. ⁹⁰	SSTM/A	April 2011 in fighting in Riyak Payam, Mayom county, Unity state	Sudan	The rifles were loaded with thousands of rounds of a single variety of Sudanese-manufactured 7.62x39 mm ammunition with headstamp '1_39_10'.
Similar Type 56-1 assault weapons	SSTM/A	March 2011 in Jonglei state		According to the 2011 UN report of the Panel of Experts on the Sudan, SAF had imported similar types of ammunition into Darfur.
Sudanese 7.62x39 ammunition with headstamp '1_39_10'	David Yau Yau's forces	July 2011 while forces awaited integration in Eastern Equatoria state		
Chinese-manufactured Type 69 RPG round with lot number '8_91_93'	SSTM/A	February 2011 in Phom el Zeraf, Jonglei	Eritrea	According to the UN Somalia and Eritrea Monitoring Group, identical rounds bearing the same lot number were seized from Ogaden National Liberation Front (ONLF) forces in Somalia in September 2010. Eritrea reportedly supplied these rounds to the ONLF. ⁹¹
Four relatively new Chinese-made Type 80 machine guns	SSTM/A	April 2011 in fighting in Riyak Payam, Mayom county, Unity state	Sudan	Accompanied by 7.62x54R Chinese factory 945 ammunition, produced in 2009.
Similar Type 80 machine gun	SSTM/A	February 2011 in Phom el Zeraf, Jonglei state		Accompanied by Chinese factory 945 ammunition, which appears to have been repackaged in Khartoum. According to the 2011 UN report of the Panel of Experts on the Sudan, SAF had imported similar types of ammunition into Darfur.
Eight relatively new RPG-7 launchers that resembled Iranian-manufactured varieties.	SSTM/A	April 2011 in fighting in Riyak Payam, Mayom county, Unity state	Sudan	Iranian-made weapons are consistent with Sudanese supply lines. ⁹²
Five Russian-manufactured ⁹³ 82 mm 0-832 series high explosive fragment bombs (mortars) lot number '01-10' ⁹⁴	SSTM/A	May 2011 in fighting in Mankien, Unity state	Sudan	Contained charges with marking indicating manufacture in Sudan in 2007. The same type of mortars, with similar lot numbers ('01-06' and '01-07'), were reportedly seized from SAF by SPLA-N in fighting in Blue Nile state in September 2011. JEM reportedly seized 120 mm mortars with the same marking format from SAF in Darfur in 2009.
Several 82 mm mortar tubes with bipod and baseplate ⁹⁵	SSTM/A	May 2011 in fighting in Mankien, Unity state	Sudan	Identical mortar bipod and baseplate captured from SAF by SPLA-N in Blue Nile in September 2011. Accompanied by a brand new Chinese-made Type 65 82 mm recoilless rifle round. ⁹⁶
Several Chinese-made Type 85 12.7 mm heavy machine guns ⁹⁷	SSTM/A	Fighting in Upper Nile / Jonglei states, viewed April 2011	Sudan	SAF employs large numbers of the same Type 85 heavy machine gun throughout Darfur. ⁹⁸ SPLA-N reportedly seized, among other items, a SAF technical with an identical Type 85 mounted in its cab during fighting in al Hamra, South Kordofan, in July 2011. ⁹⁹



Left: Newly manufactured Chinese Type 56-1 assault rifles, seized by SPLA forces in battle with the SSLA in April 2011 in Riyak Payam, Mayom County, Unity state. © Jonah Leff

Centre: Sudanese-manufactured 7.62x39 ammunition with headstamp '1_39_10' seized from forces of George Athor in Phom Zeraf, Jonglei, and from Peter Gadet's militia in Riyak Payam, Mayom County, Unity, in mid-2011. © Jonah Leff

Right: 82 mm mortars with lot number 01-10, captured from Peter Gadet's forces in May 2011 in Unity state. Confidential source.

between 23 December and 5 January perhaps as many as 3,000 people were killed, hundreds of women and children abducted, and 100,000 cattle taken.¹⁰⁰

The majority of weapons used by tribal militia groups in Jonglei and elsewhere are old assault rifles that have circulated in South Sudan and the region for decades. But recent reports reveal that, in areas afflicted by both political and communal armed conflict, government security forces and rebel militias are also supplying newer weapons to buy patronage.

In 2011, for example, the late Athor enlisted local youths to embolden his assault on the SPLA in Jonglei. In May he armed more than 1,000 local Gawaar Nuer and Padeng Dinka youths with a total of 1,500 Kalashnikov-pattern assault rifles, 27 PKM-type machine guns, and some 90,000 rounds of ammunition in exchange for their promise to support his attack on the SPLA while furthering their assault on the Murle in Pibor county in June–July 2011. Ultimately, the youths did not obey Athor, refusing to attack villages inhabited by their fellow tribesmen.¹⁰¹ A UN mission observer who travelled to Pibor after clashes noted dozens of Nuer youths wielding the same new Type 56-1 assault rifles and Type 80 machine guns that the SPLA had seized from both Gadet’s and Athor’s forces months earlier, which appear to have been sourced from Sudan. Athor may have armed them directly, or the arms may have come through the spiritual leader Dak Kueth Deng, who, experts and the SPLA claim, mobilized Nuer youths to attack the Murle with weapons he had procured from Athor.¹⁰² Simultaneously, David Yau Yau supplied Murle youths with weapons he had received from George Athor for similar purposes.¹⁰³

A similar situation occurred in September–October 2011 as Athor’s forces advanced toward Duk Padiet, Duk county; local Nuer, whom he had armed, withdrew from conflict with the local community and the SPLA reinforcements from Bor.¹⁰⁴ Moreover, images of the White Army returning to Akobo town following their assault

on Pibor in January 2012 reveal Nuer youths brandishing the same new Type 56-1 assault rifles that Athor had supplied to Nuer youths months earlier. Further, the Small Arms Survey recovered ammunition that the White Army had reportedly fired at Murle in Likuogole and along the Kengen river in December 2011 and January 2012. The unusual Czech-manufactured 7.62×39 ammunition matched an identical variety of ammunition that had been captured from Athor’s forces in Jonglei in March 2011. Another variety of 7.62×39 ammunition, this one manufactured in China, was recovered at the same site with the headstamp ‘31_74’, a variety in wide use by the SPLA, suggesting possible SPLA support to the Nuer.

The SSPS and SPLA are also a source of weapons for tribal militias. In Jonglei, in particular, where the SPLA is a fragmented force of former anti-SPLA fighters with little or no command and control, and where SSPS officers cleave to their tribes, both forces reportedly supplied weapons to the Dinka during clashes with the Lou Nuer in June–August 2011, resulting in hundreds of deaths and the looting of thousands of cattle. Throughout the period of fighting, the SPLA recovered an undisclosed number of SSPS-marked rifles—belonging to local officers—from deceased Dinka fight-

ers. SSPS-marked rifles were also captured from Dinka after clashes with the Jubel tribe in Lakes state in May 2011. SSPS commanders from both states were summoned to Juba for questioning, and investigations are ongoing. There is circumstantial evidence suggesting that the SPLA offered similar support to the Dinka in both arenas.¹⁰⁵ It is widely believed that SPLA and SSPS officers have been defecting to both the White Army and Murle militias to aid their kinsmen.¹⁰⁶ Moreover, the SPLA established and armed the ‘SPLA-Youth’, a group of Murle youths to fight against David Yau Yau in Pibor County, Jonglei state.¹⁰⁷

Finally, unsafe SPLA stockpiles serve as a source of weapons at the community level. Outside Juba, arms and ammunition are almost always stored in sub-standard conditions—in insecure mud huts, abandoned school buildings, hospitals and other facilities, and corrugated steel huts.¹⁰⁸ Improper storage not only makes these weapons caches easy targets for looting; ammunition is vulnerable to explosion. Elsewhere, in the northernmost areas of South Sudan, the SPLA uses various arms depots during fighting; but when fighting ceases they hand them over to community leaders. SAF units of the JIUs, similarly, left large quantities of arms and ammunition in their barracks when they reintegrated.¹⁰⁹

Table 4 **Estimated force strengths and arms holdings among non-state militias**

Category	Estimated strength	Estimated small arms inventories	Comments
Non-state militias			
SSLM/A	2,500	2,500	Keeps additional weapons in stores for new recruits
SSDM/A	2,600	2,600	About 1,800 soldiers are awaiting integration orders in northern Jonglei state. An Upper Nile faction is still active
LRA	50	50	Transits into and out of Raja county, Western Bahr al Ghazal
Nuer White Army	4,000	4,000	High-end estimate
Others	1,000	700	Including the South Sudan Defence Forces and National Democratic Front
Totals	10,150	9,850	

Note: Force strength and weapons holding estimates are based on fieldwork and key informant interviews conducted by the Small Arms Survey, November 2011–March 2012.

Conclusion

Small arms and light weapons proliferation has been a vector of insecurity in South Sudan since the civil war era. Today, arms flows to both state and non-state actors in South Sudan are increasing as the country is locked in a number of internal and external armed conflicts. The impact on human security is devastating.

The re-emergence of proxy arming, a hallmark of the second civil war, is especially disturbing. Both Khartoum and Juba have raised the stakes by supporting allies to destabilize the other. In most cases, mutual accusations of military and logistical support are legitimate, while the ongoing denials have little credibility. Proxy arming is a short-term strategy with almost inevitable long-term consequences, creating new power centres that the sponsors can no longer control. The weapons being supplied will also be circulating for decades. Rebel militias are fewer now than in 2011 but a number remain and seem to be growing their capabilities, with funding and unfettered access to new weapons from a host of sponsors.

Exacerbating the situation, the SPLA is unable to demonstrate adequate controls over its existing arsenal; losses in battle are routine and poor stockpile security is the norm. Newly conceived programmes to enhance the professionalization of South Sudan's security services are positive developments, but there is considerable room for the international community, including South Sudan's neighbours, to push the SPLA to become more accountable. This will be all the more necessary if, as is believed, the GoSS continues to increase its arms and defence procurement efforts. ■

Notes

This Issue Brief is based on fieldwork conducted by the Small Arms Survey in South Sudan in October 2011–March 2012.

- 1 Small Arms Survey (2011d).
- 2 Small Arms Survey (2009).
- 3 This is a conservative estimate based on Small Arms Survey fieldwork in 2011 and interviews with security analysts in February 2012.
- 4 The army itself does not keep comprehensive centralized records of its arms inventories.
- 5 Lewis (2009, p. 39).
- 6 Interviews with international experts, Juba, October–November 2011.
- 7 Small Arms Survey (2011a, p. 9); interview with security advisor, Juba, 26 November. Through its military resizing plan, 'Objective Force 2017', the SPLA aims to reduce its forces to 120,000 soldiers.
- 8 The JDB was one of a number of CPA-created bodies that remained deadlocked for the duration of the six-year interim period due to a mutual lack of trust between the parties to the agreement.
- 9 See Lewis (2009, p. 39).
- 10 US (1992, p. 4974).
- 11 US (1997, p. 59989).
- 12 White House (2012).
- 13 Reuters (2012).
- 14 CEU (1994). In 2004 the embargo was expanded to include brokering, financial, technical, transport, and other military-related assistance (CEU 2004a; 2004b); in 2005, it was revised again to implement the UN sanctions on Sudan related to the conflict in Darfur (CEU, 2005).
- 15 UNSC 1591 (2005).
- 16 CEU (2011).
- 17 Interviews with security experts, Juba, October–November 2011.
- 18 Interviews with security experts, Juba, October–November 2011.
- 19 Lewis (2009).
- 20 US Embassy Nairobi (2008).
- 21 See Lewis (2009); Matthysen et al (2010); Holtom (2011).
- 22 See Lewis (2009, pp. 39–40).
- 23 Lewis (2009, p. 37).
- 24 The first was a shipment on 3 July 2008 of 18 T-55 tanks that UN Police observed being delivered to Blue Nile state. On 10 October, a C-130 cargo aircraft landed at Juba International airport, where it proceeded to unload small and high calibre weapons. The SPLA said the weapons were intended for display at the First Ethiopia-South Sudan Trade Fair, where they were reportedly shown at a private part of the fair. Lastly, observers from the UN Mission in Sudan (UNMIS) witnessed two deliveries of 1,000 new assault rifles on 14 and 16 November that SAF alleged had been flown from Ethiopia. The SPLA said the flights originated in Juba, but UNMIS had no record of flights from Juba to Malakal on that day.
- 25 Interview with security advisor, Juba, 31 October 2011. The Small Arms Survey was not able to verify the quantity and type of ammunition.
- 26 Interviews with security experts, October 2011–January 2012.
- 27 Small Arms Survey (2009, p. 4).
- 28 B92 (2011).
- 29 Press Online (2011).
- 30 Matthysen et al (2010).
- 31 Lewis (2009, p. 39).
- 32 US Embassy Khartoum (2009).
- 33 Gelfand and Puccioni (2009).
- 34 Interviews with security experts, Juba, November 2011.
- 35 Interviews with security experts, Juba, November 2011.
- 36 Bloomberg (2010); Jane's Sentinel Security Assessment – North Africa (2011).
- 37 Interviews with security experts, Juba, October–November 2011.
- 38 Rands (2010, p. 32).
- 39 *Sudan Tribune* (2011b).
- 40 US (2011).
- 41 *Sudan Tribune* (2011c).
- 42 Small Arms Survey (2009, p. 2).
- 43 This ammunition is used in 12.7 mm heavy machine guns.
- 44 *Sudan Tribune* (2012b).
- 45 For a discussion of China's relationship with Sudan, oil development, and weapons exports, see Small Arms Survey (2007).
- 46 GoSS (2008).
- 47 This is a conservative estimate based on fieldwork in October 2011–January 2012. Interviews with Ministry of Interior officials and security experts, Juba, October–November 2011.
- 48 The SSPS intends to eventually collect all personal firearms from its officers and replace them with service-issued weapons. Interviews with SSPS officials and international experts, Juba, October–November 2011.
- 49 Telephone interview with confidential source close to the SSPS, 12 December 2012.
- 50 Interview with SSPS Major Mading Majak, Juba, 8 November 2011. The US Department of State provided funding for the marking initiative.
- 51 Interview with SSPS Major Mading Majak, Juba, 8 November 2011.
- 52 There were approximately 177,000 soldiers at the time of independence. Another 25,000 Joint Integrated Units (JIUs) and a few thousand rebels have since integrated.
- 53 See Small Arms Survey (2007, p. 3).
- 54 For more on the LRA in Sudan, see Schomerus (2007).
- 55 *Sudan Tribune* (2011a).
- 56 Email correspondence from security expert, 9 January 2012.
- 57 Small Arms Survey (2011c).
- 58 Interview with security expert, Juba, 31 October 2011; interview with UNMISS official, Juba, 9 November 2011.
- 59 Email correspondence from security expert, 9 January 2012.
- 60 Interviews with international experts, Juba, October–November 2011; Western diplomats, Juba, 25 November 2011; and SAF Military Intelligence Officer General Saad Omer, Khartoum, 14 December 2011.
- 61 *Sudan Tribune* (2012a; 2012c).
- 62 James Gai is the military commander and Bapiny is his deputy. Bepean is the chief of staff and Kolchara and Puljang are operational commanders. The SSLA have broken their areas of operation into three sectors, with Kolchara commanding sector one (Bentiu) and Bepean commanding sectors two and three in Mayom and areas to the South.
- 63 Phone interview with SSLM/A spokesman Gordon Buay, 8 December 2011; interview with Bapiny Monytil, Khartoum, 14 December 2011.

- 64 Interviews with UNMISS officials and security experts, Juba, October 2011–January 2012.
- 65 Bubna (2011).
- 66 *Sudan Tribune* (2011d; 2011e).
- 67 Email correspondence with security expert, 9 January 2012.
- 68 Interview with Bapiny Monyтуil, Khartoum, 14 December 2011.
- 69 Small Arms Survey (2011d, pp. 5–6).
- 70 *Sudan Tribune* (2011f); email correspondence from SSLA, 23 December 2011. There are conflicting reports regarding Athor's death. The SPLA claims to have captured and killed him while he was on a recruitment drive in Morobo county, Central Equatoria. The SSDM/A allege that Ugandan President Yoweri Museveni was responsible for killing Athor while he was in Uganda discussing future peace talks.
- 71 Email correspondence from SSDM/A, 6 January 2012.
- 72 Interview with Peter Kuol Chol Awan, SSDM/A Chairman, Juba, 31 March 2012.
- 73 Interview with SPLA Chief of Staff, Maj. Gen. Hoth Mai, Juba, 31 October 2011; SSDM/A (2011); *Sudan Tribune* (2010); Bubna (2011, p. 11).
- 74 Interviews with UNMISS officials and security experts, Juba, October–November 2011.
- 75 For a fuller explanation of tracing arms and ammunition in South Sudan, see Small Arms Survey (2012).
- 76 These lists of weapons do not necessarily reflect each group's entire arsenal.
- 77 These lists of weapons do not necessarily reflect each group's entire arsenal. Some of the large calibre and more sophisticated weapons included in the lists have not been independently verified.
- 78 Based on a sample of 5,312 weapons collected during civilian disarmament in Warrap, Lakes, and Western Equatoria states.
- 79 Interview with Bol Gatkuoth, Juba, 29 October 2011.
- 80 Interviews with UNMISS officials and security experts, Juba, October–November 2011.
- 81 Interview with international expert based in Jonglei state, Juba, 25 November 2011.
- 82 UN Monitoring Group on Somalia and Eritrea (2011, paras. 328–35).
- 83 Interview with security expert based in Jonglei state, Juba, 26 November 2011; interviews with UNMISS, SPLA, and Jonglei state government officials, October–November 2011, February–March 2012.
- 84 Interviews with rebel leaders November–December 2011.
- 85 Email correspondence with security expert, 9 January 2012.
- 86 Interview with Bapiny Monyтуil, Khartoum, 14 December 2011.
- 87 For more on the White Army, see Young (2007).
- 88 Email correspondence from Nuer/White Army diaspora spokesman Tut Deang, 5 January 2012; correspondence with UNMISS official, February 2012.
- 89 Email correspondence from security expert, 11 January 2012.
- 90 The rifles appear to be identical to hundreds of rifles captured on video in the hands of Gadet's force. See <<http://www.youtube.com/user/BolKol1000#p/u/4/hC2RzJfS-2s>>. Uploaded 30 June 2011.
- 91 UN Monitoring Group on Somalia and Eritrea (2011, paras. 328–35).
- 92 On the prevalence of older Iranian-manufactured small arms ammunition and landmines in SAF stocks and those of former Khartoum-backed South Sudan Defence Forces (SSDF) groups, see Small Arms Survey (2009).
- 93 There is reason to believe that Sudan's Military Industrial Corporation is producing a copy of the Russian o-832 series 82 mm mortar.
- 94 Photographed by confidential source.
- 95 Photographed by journalist.
- 96 This is the first time such a round has been identified in South Sudan. Interview with UNMISS official, Juba, 25 October 2011.
- 97 The Small Arms Survey viewed one Type 85; the SPLA said it had seized several others from Athor, but had redistributed all but one to its forces. Interview with SPLA Brigadier General Chol Canal, 29 April 2011.
- 98 Observed by the author in Darfur, 2009–10.
- 99 Interview with confidential source who visited South Kordofan to view the weapons, Nairobi, 21 October 2011.
- 100 Interview with Pibor County Commissioner Joshua Konyi, 8 February 2012. Interviews with UNMISS personnel, Juba, February 2012.
- 101 Interview with UNMISS official, Juba, 25 October 2011.
- 102 Interviews with UNMISS officials and security experts, Juba, October–November 2011; interview with SPLA spokesman, Colonel Phillip Aguer, Juba, 27 October 2011.
- 103 Interviews with UNMISS officials in Juba and government officials in Jonglei state, November 2011 and February–March 2012.
- 104 Interview with UNMISS official, Juba, 24 November 2011. The SPLA reportedly transported 50 weapons to Duk Padiet, where they were given to local youths, and provided ammunition to an additional 350 armed youths that were already staging their defence of the town.
- 105 Interview with confidential source from the Ministry of the Interior, Juba, 22 November 2011; interview with UNMISS official, Juba, 25 October 2011.
- 106 Interviews with international experts, local leaders, and UNMISS staff, February 2012.
- 107 Interview with security experts and local government officials in Bor, Jonglei state, March 2012.
- 108 Kahl (2011).
- 109 Interview with security experts, Juba, October–November 2011. In addition, arms depots that were left behind by SAF at the end of the civil war have never been reappropriated by the SPLA, making them prime targets for looting.

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HSBA project summary

The Human Security Baseline Assessment (HSBA) for Sudan/South Sudan is a multi-year project administered by the Small Arms Survey. It was developed in cooperation with the Canadian government, the United Nations Mission in Sudan (UNMIS), the United Nations Development Programme (UNDP), and a wide array of international and Sudanese partners. Through the active generation and dissemination of timely, empirical research, the project supports violence reduction initiatives, including disarmament, demobilization, and reintegration programmes, incentive schemes for civilian arms collection, as well as security sector reform and arms control interventions across Sudan and South Sudan. The HSBA also offers policy-relevant advice on redressing insecurity.

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The HSBA receives direct financial support from the US Department of State, the Ministry of Foreign Affairs of Denmark, the Netherlands Ministry of Foreign Affairs, the Norwegian Ministry of Foreign Affairs, as well as the United

States Institute of Peace. It has received support in the past from the Global Peace and Security Fund at Foreign Affairs and International Trade Canada and the UK Government Global Conflict Prevention Pool. Additional support has previously been provided by the Danish Demining Group and the National Endowment for Democracy.

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