

Arms and Ammunition Tracing Desk Report

Human Security Baseline Assessment (HSBA)
for Sudan and South Sudan



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Comparable SPLM-N arms and ammunition stocks in South Kordofan and Blue Nile, April 2013

Armed conflict in South Kordofan and Blue Nile, ongoing since June and September 2011, respectively, involves units of the Sudan People's Liberation Movement-North (SPLM-North) 1st Division and allied opposition forces against the Sudan Armed Forces (SAF). Since the South Kordofan conflict began, analysis of SPLM-N stocks by the Small Arms Survey indicates that the 1st Division has captured significant volumes of materiel from SAF, especially ammunition, reducing its dependence on supplies originating from outside Sudan (see HSBA Working Paper 29).¹

The SPLM-N 2nd Division (Blue Nile), conversely, has seized only limited volumes of arms and ammunition because it has had few military engagements with SAF. According to several 2nd Division officers, equipment was mainly gathered while SPLM-N units repositioned themselves in the first stages of the war or abandoning the town of Kurmuk, in early November 2011.

The Small Arms Survey conducted field-research missions in SPLM-N controlled positions in South Kordofan (in May 2012) and Blue Nile (in November and December 2012) and carried out physical inspections of military equipment stockpiles under the armed movement's custody. Items observed were reportedly captured from SAF arsenals during military confrontations or from Joint Integrated Unit (JIU) depots when the SPLA JIUs were withdrawing from the main urban centres after the war erupted. Based on these investigations, SAF appears to be the primary source of the bulk of military equipment in the hands of the SPLM-N, even if volumes of captured weapons and ammunition differ significantly in the two theatres. Despite significant differences in terms of volumes of weapons captured by the SPLM-N in South Kordofan and Blue Nile, this report indicates that the types of arms and ammunition are very much the same.

While most weapons observed were previously held by SAF, a minority appears to have come into SPLM-N hands from other sources. Examples are documented in this report. The full chain of custody of these weapons and ammunition remains elusive.

Unmarked 7.62x39 mm ammunition



7.62x39 mm brass cased ammunition with red primer seal with no headstamps were documented in both Blue Nile and South Kordofan. Rounds observed in Blue Nile (top-left picture) were reportedly captured from SAF in Khor Buly in August 2012, without any packaging. Those observed in South Kordofan (top-right picture) were reportedly captured from SAF during the battle of al Hamra, near Kadugli, on 30 June and 1 July 2011. Ammunition was contained in white cardboard boxes, each containing 20 rounds. The white cardboard boxes were contained in a grey wooden box only bearing information on the quantity contained (1,300 rounds), weight, and lot number (6-11-03), with no reference to the country of origin or manufacturer. The SPLA captured identical unmarked 20-round boxes from South Sudanese rebels in 2012.²

Chinese 12.7x108 mm ammunition



As documented in previous reports,³ 12.7x108 mm ammunition bearing '41' and '10' as factory code and year of manufacture, respectively, has been observed in conflict-affected areas throughout Sudan. Ammunition of this type was documented in South Kordofan, reportedly captured in the battles of al Hamra in June and July 2011 by SPLM-N (top-left picture) and captured in Jaw by the Justice and Equality Movement (JEM) in February 2012 (top-right picture). Identical rounds were observed in Darfur at the SAF military camp of Shangal Tobay in May 2011.⁴ In all cases the ammunition was contained in boxes bearing the inscription S.T.C, an abbreviation for Sudan Technical Center, one of Sudan's weapons manufacturing plants.⁵ Similarly, the presence of 12.7x108 mm rounds (wrapped in black plastic bags, each containing four rounds) identical to those seen in Darfur and South Kordofan were also documented in an SPLM-N garrison near the frontline in Blue Nile (bottom picture). Although considered by local SPLM-N officers as 'part of SPLM-N stocks from before the war,' the black bags were contained in wooden boxes identical to those captured from SAF in South Kordofan and observed in Darfur.

Iranian 12.7x108 mm ammunition



The Small Arms Survey documented Iranian-manufactured 12.7x108 mm ammunition in both South Kordofan and Blue Nile. Rounds observed in South Kordofan, reportedly captured from SAF stockpiles during the battle in al Ihemir in August 2011, appear to have been manufactured in 1998 (top-left picture), while those observed in Blue Nile, reportedly captured from SAF facilities in Kurmuk on 4 September 2011, were produced in 1994 (top-right picture) and packaged in green plastic bags bearing a Farsi inscription (bottom-right picture).⁶

82 mm anti-tank ammunition (0-881A type)



While inspecting SPLM-N weapon stores in South Kordofan and Blue Nile, the Small Arms Survey observed numerous examples of anti-tank ammunition, especially those designed for B-10 recoilless rifles. The majority of this ammunition was manufactured by the former Soviet Union. The ammunition in both states bore very similar marking codes and cloth wrappings, as seen in the photographs above. The first two pictures show an 82 mm round manufactured in 1974, reportedly captured in Mendi, in South Kordofan, in June 2011, while the third and fourth ones show a similar round produced in 1973, which the SPLM-N 2nd Division reportedly captured from SAF in Dindiro, Blue Nile, in September 2011.

Mortar tubes and bombs



Although the majority of the military hardware captured by the SPLM-N was manufactured outside Sudan, the Small Arms Survey also documented the presence of Sudanese-manufactured military equipment. Mortar bombs and tubes, in particular, represent a significant share of weapons captured by the SPLM-N since the start of the conflicts in South Kordofan and Blue Nile.

The first two photos show an 82mm mortar bomb (0-832 series), which has a construction and markings consistent with those manufactured at the Yarmouk Industrial Complex in Sudan.⁷ The bomb (manufactured in 2006) was reportedly captured in Kurmuk, Blue Nile, in early September 2011, while the bottom photos show a box of similar mortars manufactured in 2011. The SPLM-N 1st Division reportedly captured it during the battle in al Hamra, South Kordofan between 10 June and 1 July 2011. The Small Arms Survey has documented dozens of similar Sudanese-manufactured mortar bombs in Darfur and with Khartoum-backed rebels in South Sudan.

Sudanese-manufactured mortar tubes in both South Kordofan and Blue Nile were also observed. The pictures above only represent a small sample of the mortar tubes held by the SPLM-N. Top photos show a 120 mm mortar tube produced in 2008. It was reportedly captured during the battle in al Hamra, South Kordofan. The bottom photos feature an 82 mm mortar tube that the SPLM-N reportedly seized from SAF in Kurmuk, Blue Nile, in early September 2011. The mortar tube was manufactured in 2007. The Small Arms Survey has documented similar mortar tubes with Khartoum-backed rebels in South Sudan.



73 mm PG-9P ammunition



A number of 73 mm ammunition for SPG-9 anti-tank recoilless rifles were documented in South Kordofan and Blue Nile. As featured in the photos, some were still wrapped in their original cloth wrapping, and, according to the markings, manufactured in Bulgaria in 1992. The SPLM-N reportedly captured these from SAF in Dindero, Blue Nile, in September 2011 (top photo), and during the battle in al Hamra, South Kordofan, at the end of June and early July 2011 (bottom photo).

QLZ-87 automatic grenade launchers (35 mm)



The Small Arms Survey observed three Chinese-type QLZ-87 35 mm automatic grenade launchers in South Kordofan and Blue Nile. According to marking codes visible on various parts of the launchers, they were all manufactured by the same producer (identified by the '9656' code). The relatively close sequence of serial numbers suggests that these three launchers were most likely part of a single consignment.

The SPLM-N reportedly captured QLZ-87 launchers from SAF during the battle in al Hamra, South Kordofan, in June/July 2011 (serial number 141169 as shown in top photos) and during the unsuccessful attempt to take control of Tolodi, South Kordofan, in April 2012 (serial number 141807 as shown in the centre photos). The Small Arms Survey also documented several rounds of QLZ-87 ammunition in South Kordofan, but none was observed in Blue Nile despite the presence of one QLZ-87 launcher (serial-number 141010 as shown in the bottom photos), which was reportedly captured during the battle fought in Surkum, in September 2012. This type of grenade launcher was also used in the Darfur conflict between 2008 and 2011.⁸

An MIC promotional video on YouTube, showcasing Sudan's weapons manufacturing capabilities, displays QLZ-87 grenade-launchers.⁹

Type 56-2 assault rifles



Since the start of the conflicts in South Kordofan and Blue Nile, the SPLM-N succeeded in capturing an undetermined number of assault rifles from SAF and its affiliated forces. The majority of a limited sample observed appeared to be Chinese-produced, and manufactured in factories '313', '386', and '9336'.

In some cases, serial numbers of rifles captured in South Kordofan and Blue Nile appeared particularly close, as shown by the examples above. The SPLM-N reportedly captured rifle '406584' (top photos) during the battle in al Ihemir, South Kordofan, in August 2011, while the rifle bearing serial number '406593' (bottom photos) was reportedly collected from facilities of the Sudanese police, in the town of Kurmuk, Blue Nile, in early September 2011.

302 mm Weishi long-range rockets



In addition to equipment captured from SAF and its affiliated forces, the Small Arms Survey inspected remnants of bombs and rockets used by SAF in both South Kordofan and Blue Nile. While remnants and shrapnel of Antonov-dropped bombs did not provide enough elements (visible marking codes or any other particular feature) to enable the exact identification of the bombs, it was possible to document, in both theatres of the conflict, remnants of Chinese manufactured 302 mm Weishi long-range rockets for multiple launch rocket systems.

The photos above show remnants of rockets reportedly fired over Tabaniya, South Korodfan, in February 2012 (top photo). Remnants of rockets reportedly fired in Wadaka, Blue Nile, in October 2011 and Mayak, Blue Nile, in November 2011 were also observed. Similar to SAF's aerial bombardment, the use of these long-range rockets have not caused many casualties. However, they have spread fear across the civilian population, resulting in large-scale displacement, interruption of farming, and the emergence of a severe humanitarian crisis and food insecurity in both states.

Equipment previously held in neighbouring countries

The Small Arms Survey also identified equipment in SPLM-N controlled stockpiles previously in control of neighbouring governments. This does not imply that the weapons were deliberately transferred to Sudan (or South Sudan), nor that they are reflective of current military support to any warring parties in Sudan. At the time of drafting this report, the Small Arms Survey could not determine the exact chain of custody of these select items, nor the routes by which they were transferred to SAF and/or SPLM-N stockpiles.

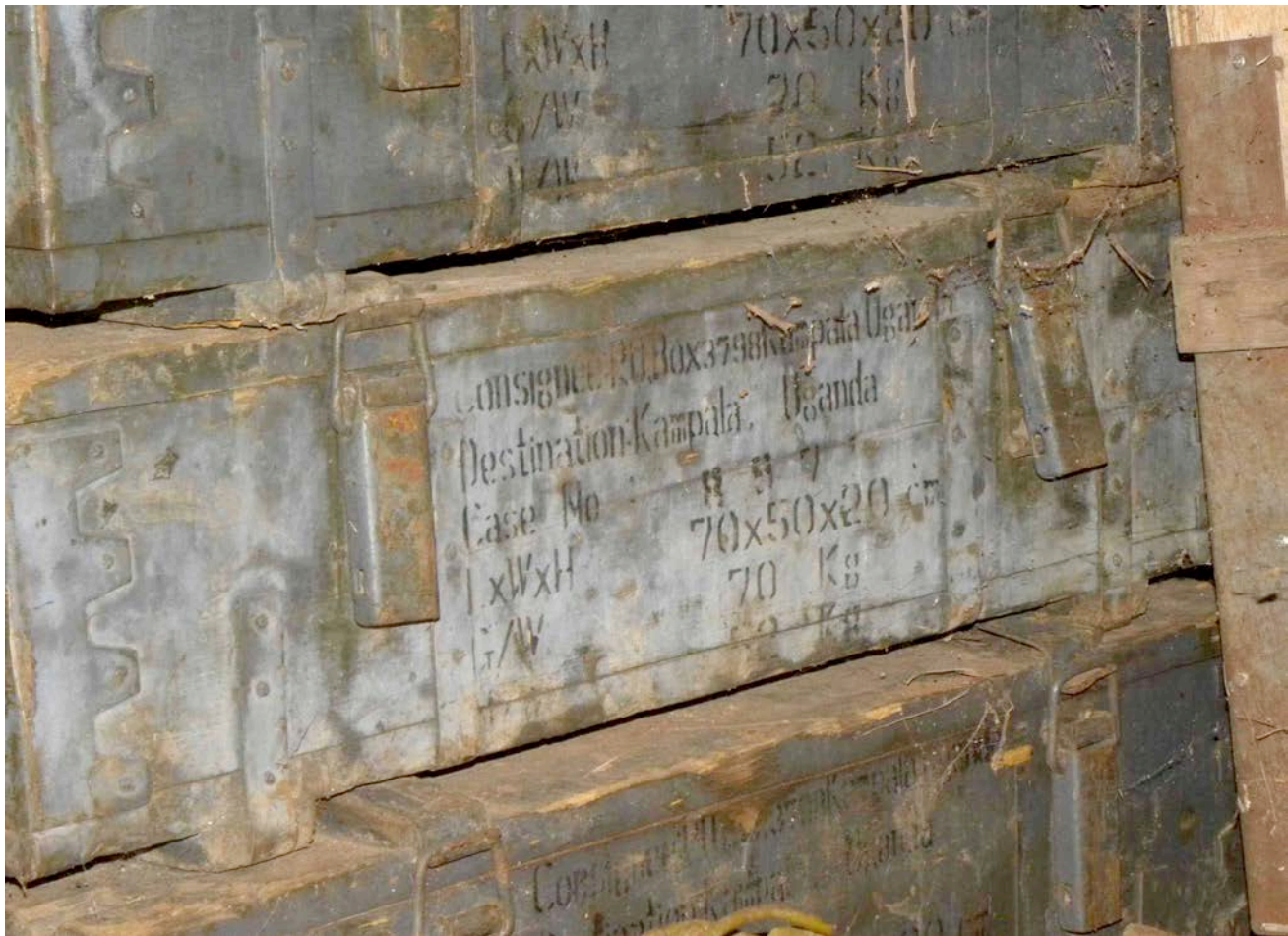
These weapons are presented in the photos below and include:



A G3-type assault rifle, reportedly captured from SAF stockpiles in Heiban, South Kordofan, in June 2011. The markings on the weapon indicate that the rifle was manufactured in the United Kingdom by Enfield.¹⁰ Information gathered suggests that the weapon belonged to a consignment of rifles transferred to the Kenyan Armed Forces at the end of the 1970s;



Bulgarian-manufactured 82 mm mortar bombs, reportedly captured from a SAF warehouse in Heiban, South Kordofan, in June 2011. According to information provided by the Bulgarian government, these bombs were manufactured in 1999 and exported during the same year, under a duly issued export licence, to the Ministry of National Defence of Ethiopia;¹¹



Boxes containing undetermined equipment, observed in an SPLM-N's store in Blue Nile bears a reference to the Ugandan Ministry of Defence as consignee (bottom photo).¹² These boxes were reportedly transferred to the store where they were observed when the SPLM-N fled Kurmuk in November 2011. As previously reported by the Small Arms Survey, boxes of Bulgarian-manufactured anti-aircraft ammunition was observed in South Kordofan, under the custody of SPLM-N units in Daldoko.¹³

Sudan Human Security Baseline Assessment (HSBA) for Sudan and South Sudan

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¹ For an account of the South Kordofan conflict, see: *New war, old enemies: Conflict dynamics in South Kordofan*, HSBA Working Paper 20. Geneva: Small Arms Survey, April 2013.

² See *Weapons seized from the forces of George Athor and John Duit*, HSBA Arms and Ammunition Tracing Desk Report. Geneva: Small Arms Survey, December 2012.

³ See, for example, *Forgotten Darfur: Old Tactics, New Players*. HSBA Working Paper No. 28. Geneva: Small Arms Survey, July 2012.

⁴ Similar cartridges, boxes, and small black plastic bags were observed in Northern Darfur, in May 2011. For additional details, see paragraphs 44 to 49, Annex IV and Annex VII of the *Report by former members of the Panel of Experts on the Sudan*, January 2012 (published on-line by *Africa Confidential*).

⁵ See *Weapons seized from the forces of George Athor and John Duit*, HSBA Arms and Ammunition Tracing Desk Report. Geneva: Small Arms Survey, December 2012; *Further weapons seized from SAF in South Kordofan*, HSBA Arms and Ammunition Tracing Desk Report. Geneva: Small Arms Survey, July 2012; and *Report by former members of the Panel of Experts on the Sudan*, January 2012 (published on-line by *Africa Confidential*).

⁶ The inscription, in Farsi, refers to 'Small-calibre ammunition manufacturing industry group' (upper line) and 'Factory for manufacturing DShK ammunition' (lower line).

⁷ Information further confirmed by the samples presented by the Sudanese Military Industry Corporation at the 2013 IDEX fare, in Dubai.

⁸ See *Business as Usual: Arms Flows to Darfur 2009–12*, HSBA Issue Brief 20. Geneva: Small Arms Survey, September 2012; *Further weapons seized from SAF in South Kordofan*, HSBA Arms and Ammunition Tracing Desk Report. Geneva: Small Arms Survey, July 2012; *Report by former members of the Panel of Experts on the Sudan*, January 2012 (published on-line by *Africa Confidential*); and *Final report of the UN Panel of Experts on the Sudan S/2009/562* (picture 7 and paragraph 136), UNSC, 27 October 2009.

⁹ The video footage can be seen on <<http://www.youtube.com/watch?v=bmp8u3Y24wQ>>. The image of a grenade-launcher type QLZ-87 can be seen at 4m10s of the footage.

¹⁰ Information provided by the German Arms Control Authority. Written correspondence, October 2012.

¹¹ Information provided by the Bulgarian government. Written correspondence, October 2012.

¹² The address marked on the box (PO Box 3798, Kampala) corresponds to the official address of the Uganda's Ministry of Defence headquarters.

¹³ *SPLM-N weapons and Equipment, South Kordofan, December 2012*, HSBA Arms and Ammunition Tracing Desk Report. Geneva: Small Arms Survey, December 2012.