CHAPTER 1 - CONVENTIONAL AMMUNITION CONTROLS AND THE ARMS TRADE TREATY

INTRODUCTION

On 1 March 2018, Iraqi security forces apprehended a vehicle as it headed west along a major highway in the city of Mosul. Upon inspection, they discovered more than 300 tins, each containing hundreds of rounds of small-calibre ammunition. The vehicle was also carrying almost a thousand rockets, projectiles and propelling charges, as well as 28 rocket launchers. In all, the vehicle contained more than 234,000 units of diverted ammunition, almost a quarter of which had been produced in the previous decade.1

Conventional ammunition – which ranges from small-calibre cartridges to larger items like mortars, rockets, and precision-guided munitions – can be extremely vulnerable to diversion and highly attractive to criminals, terrorists and violent non-state actors. Moreover, conventional ammunition may pose several safety and security concerns that are distinct from those related to their associated weapon systems. These include risks arising from unsafe handling or inadequate storage at munitions sites. Ammunition and explosives are designed to detonate or combust, and therefore they have a degree of inherent instability.2 Researchers have recorded 636 unplanned explosions at munitions sites between 1979 and 2021, resulting from factors such as inappropriate working practices, poor security and a lack of surveillance leading to ammunition deterioration. More than 30,000 people were killed or injured in these incidents, an average of 718 per year.3 Ammunition lost, stolen or otherwise diverted from its legitimate state or private custodians can also be repurposed by non-state actors for use in improvised weapons or in improvised explosive devices.

Ammunition is, furthermore, a consumable item. In environments affected by armed violence, conflict and crime, demand for it increases and supplies need to be replenished fast. Evidence from the field consistently shows far higher proportions of recently manufactured ammunition in illicit supply than of weapons.4 Strict ammunition controls could therefore have an outsized impact on stemming insecurity, armed violence and violations of human rights and international humanitarian law. During the negotiations that established the Arms Trade Treaty (ATT), ammunition was the category most frequently nominated for inclusion, with 62 states calling for it to be included in the Treaty’s scope.5 Despite this, ammunition is imperfectly addressed in the Treaty and by international arms control initiatives as a whole.

This chapter is divided into three sections. First, it summarizes how conventional ammunition is covered by the ATT and provides a brief analysis of the main gaps in how the Treaty addresses it. Second, it focuses on one specific area of controls – conventional ammunition diversion – and presents case studies that draw on field data collected by the independent investigative organization Conflict Armament Research, as well as a judicial case in Brazil that was first reported by Instituto Sou da Paz. These case studies highlight some ways in which ammunition may be diverted, such as capture in battle or leakage from security forces. The section also explores some of the measures that States Parties could take to attempt to prevent or mitigate such diversion, specifically ammunition marking and tracing as well as the implementation of pre-export controls and risk assessments. Third, this chapter considers how such cases may be further addressed within the current Treaty architecture, including the recently established Diversion Information Exchange Forum.

1 This case was documented by Conflict Armament Research field investigators on 13 and 14 March 2018. Further information is available at www.itrace.com.
CONVENTIONAL AMMUNITION CONTROLS IN THE CONTEXT OF THE ATT

Article 3 of the ATT sets out the central obligations of States Parties with respect to conventional ammunition/munitions. It reads:

Each State Party shall establish and maintain a national control system to regulate the export of ammunition/munitions fired, launched or delivered by the conventional arms covered under Article 2 (1), and shall apply the provisions of Article 6 and Article 7 prior to authorizing the export of such ammunition/munitions.

Conventional ammunition types covered by Article 3 are those that can be either ‘fired, launched or delivered’ by any of the seven categories of major conventional weapons in the United Nations Register of Conventional Arms, as well as by small arms and light weapons. The term ‘fired, launched or delivered’ presents a broad basis for inclusion of a range of different ammunition by focusing on how the items are to be used rather than by identifying prescriptive technical criteria.

The purpose and effect of Article 3 is to link its scope to that of the Treaty as a whole and to establish that anything deployed by the weapon systems listed within Article 2.1 should be treated by States Parties as necessary to subject to export controls.

States Parties are required to include conventional ammunition in their national control lists under Article 5.2. However, while Article 5.3 gives an indication of the minimum requirements for such a list as regards conventional weapons, and it encourages each State Party ‘to apply the provisions of this Treaty to the broadest range of conventional arms’, no such guidance is provided for ammunition. A large number of States Parties have declared that their national control lists go beyond the minimum requirements established by the Treaty text. Analysis of ATT initial reports shows that, as of May 2023, 57 States Parties had a national control list that covers ammunition (See Table 1). Only eight States Parties said that they did not include ammunition.

Table 1 - National control lists including conventional ammunition

<table>
<thead>
<tr>
<th>The national control list includes ammunition/munitions for the conventional arms covered in Article 2.1 for the application of Article 3</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>8</td>
</tr>
<tr>
<td>No report due</td>
<td>3</td>
</tr>
<tr>
<td>No report submitted</td>
<td>23</td>
</tr>
<tr>
<td>Private report</td>
<td>21</td>
</tr>
<tr>
<td>Yes</td>
<td>57</td>
</tr>
<tr>
<td>Not completed</td>
<td>1</td>
</tr>
</tbody>
</table>

6 The Treaty text uses the term ‘ammunition/munitions’, implying that these are two interchangeable designations. As these are in fact two distinct and separate terms with different technical definitions from an operational perspective (see, for instance, the International Ammunition Technical Guidelines), this chapter use ‘conventional ammunition’ throughout to refer to the scope of material covered in the ATT.


Article 3 obligations focus primarily on export controls. The article obligates States Parties to apply the provisions of Article 6 and 7 prior to authorizing the export of ammunition/munitions. States Parties are therefore required to follow an identical process for assessing prospective ammunition exports as for conventional weapons and to base this assessment on the same risk criteria. This includes a clear requirement not to export ammunition if there is deemed to be an overriding risk of any of the negative consequences identified in Article 7.1, such as the potential for use to commit or facilitate a serious violation of international humanitarian or human rights law. States Parties must also take into account the risk of ammunition being used to commit or facilitate serious acts of gender-based violence or serious acts of violence against women and children.9 Therefore, the transfer prohibitions listed in Article 6 and the risk-assessment criteria enumerated in Article 7 apply equally and fully to all transfers envisaged by the ATT, whether for conventional arms, ammunition or parts and components.10

While Article 3 makes it clear that the same provisions of the ATT apply to exports of conventional ammunition as to the conventional weapons listed in Article 2.1, it does not do so explicitly for any of the other operative articles of the Treaty. No specific connections are established between Article 3 and Articles 8 (import), 9 (transit or trans-shipment), 10 (brokering), 11 (diversion) or 12 (record-keeping). Nor is any connection established in relation to reporting on export and import activity (Article 13). The inconsistency in the ATT’s treatment of conventional ammunition may, in theory, contribute to significant uncertainty among States Parties were they to adopt a narrow reading of the Treaty’s obligations.

In some contexts, the obligations faced by States Parties under the Treaty are clear. In a situation, for example, where a consignment of conventional ammunition is transiting a State Party’s jurisdiction and the transit authority has knowledge that it would be used in the commission of genocide, crimes against humanity or war crimes, then Article 6 unambiguously applies to any transfer of items covered under Article 3. This therefore negates the explicit absence of reference to ammunition in Article 9 on transit or trans-shipment controls.11 As noted in a legal briefing prepared in 2015 for the Expert Group on ATT Implementation, ‘a transit State Party that permits a transfer of covered items that falls within the ambit of Article 6.3 has more than just a secondary responsibility as a complicit party under Article 16 of the Articles of State Responsibility […] the transit State commits a direct violation of a primary rule of international law under the ATT’.12 In other cases, the obligations are less clear. The ATT does not establish the requirement for States Parties to apply transit and trans-shipment controls to ammunition transfers even if they might violate the criteria of Article 7, such as a risk of their use in serious violations of international human rights law. Here an approach based on a narrow reading of the Treaty would, however, be difficult to frame as consistent with its stated purpose of reducing human suffering and contribution to peace, security and stability. Several States Parties have stated during a discussion of the implementation of Article 9 in the sub-working group on transit and trans-shipment measures that their control regimes apply ‘exactly the same assessment criteria to transit and trans-shipment as they do to export, referring to both Article 6 and 7’.13

The ATT clearly has gaps in the way it addresses ammunition and, particularly, in the way that the provisions relating to diversion (Article 11) are not explicitly applied to ammunition. However, States Parties have the opportunity to address this and other lacunae through their national arms and ammunition transfer control systems. A recent international process, the Open-Ended Working Group (OEWG) on Conventional Ammunition, worked to establish norms and best practices for through-life management of ammunition. This includes the tracking of ammunition from production to disposal, as well as the prevention of its diversion and misuse. The OEWG made significant progress in addressing these issues and its work was an important step towards strengthening the global regime for the control of ammunition (See Box 1).

9 The same formulation is used to reflect States Parties’ obligations regarding parts and components in Article 4.
11 Casey-Maslen, S., et al (2016). para 3.04, p. 138. Certain international instruments may provide further support to transit and trans-shipment States Parties in this regard. For example, Article 10.2.b of the UN Firearms Protocol states that, before issuing export licenses or authorisation for the transfers not only firearms, but also their parts and components and ammunition, State Parties must ensure that ‘without prejudice to bilateral or multilateral agreements or agreements favouring landlocked States, the transit States have, at a minimum, given notice in writing, prior to shipment, that they have no objection to the transit’. Protocol Against the Ilicit Manufacturing of and Trafficking in Firearms, their Parts and Components and Ammunition, Supplementing the United Nations Convention Against Transnational Organized Crime, (2001). https://treaties.un.org/doc/source/recenttexts/18-12_c_e.pdf.
13 With some exceptions, such as forms of transit without trans-shipment, such as overflight, in which cases the prohibitions in Article 6 serve as the legal basis for ad hoc transit controls. See ATT Secretariat (2023). ‘Elements of a Voluntary Guide to Implementing Article 9.’ ATT/CSP/WGETI/2023/CHAIR/748/M2.LetterSubDocs, 3 April 2023, Paragraph 5. https://bit.ly/3NhaA8mN.
BOX 1: THE OEWG ON CONVENTIONAL AMMUNITION

On 24 December 2021, the United Nations General Assembly adopted resolution 76/233. The resolution established an Open-Ended Working Group (OEWG) to elaborate a set of political commitments as a new global framework that will address existing gaps in through-life ammunition management. The OEWG completed its work in June 2023 and adopted, without a vote, a final report to the General Assembly at its 78th session in September 2023. The final report consists of 15 objectives for safe, secure and sustainable through-life conventional ammunition management. While the nature and scope of the frameworks differ, the purpose and objectives of the ATT and the OEWG final report align in the following ways to promote responsible international transfers of conventional ammunition.

Reducing human suffering resulting from ineffective management of conventional ammunition: Article 1 of the ATT defines the purposes and objectives of the Treaty, which include to prevent eradicate the illicit trade in conventional arms and prevent their diversion, to contribute to international peace and security, and to reduce human suffering. Similarly, Participating States of the OEWG expressed serious concern over the risks posed by the diversion of conventional ammunition of all types to unauthorized recipients and the threat these pose to international peace and security. To this end, they stressed the importance of addressing the safety and security risks emanating from ineffective through-life management of conventional ammunition and the need to reduce human suffering, including through effective management of conventional ammunition in international transfers.

Promoting effective management of conventional ammunition to reduce diversion risks at the pre-transfer, in-transfer and post-transfer stages: While the OEWG does not seek to establish legal frameworks to regulate the international transfer of conventional ammunition, Participating States recognized that pre-transfer risk assessments on diversion form an essential security element for evaluating risks of diversion along the supply chain, and they acknowledged the value of taking measures to ensure that only authorized users have custody of the ammunition at the post-transfer stage. Key elements under consideration by Participating States to promote the effective management of the transfer of conventional ammunition to prevent diversion include: diversion risk assessments, the use of end-user certificates and equivalent documents at the pre-transfer stage, and post-transfer measures including encouragement for parties involved in the transfer to undertake cooperative post-delivery activities and to facilitate voluntary information sharing on diverted and trafficked ammunition.

Facilitating international cooperation and assistance in the through-life management of conventional ammunition: One of the primary purposes of the ATT is to promote cooperation and responsible actions among States Parties in the international trade in conventional arms, thereby building confidence among them (Article 1). This is reinforced specifically under Article 15 (international cooperation) and measures that States Parties may undertake to assist each other under Article 16 (international assistance) in promoting the effective implementation of the Treaty. Similarly, the primary purpose of the OEWG was to elaborate a set of political commitments that serves as an enabling framework to facilitate cooperation and assistance for states to strengthen the through-life management of conventional ammunition, thereby reducing safety and security risks associated with ineffectively managed ammunition. To this end, states may consider cooperation and assistance activities that benefit the implementation of both frameworks, including in the areas of record keeping, diversion risk assessments, post-transfer measures such as physical security and stockpile management, and voluntary information-sharing on conventional ammunition diversion and trafficking, including to support national tracing, investigations and criminal justice responses related to the diversion of conventional ammunition.

CONVENTIONAL AMMUNITION DIVERSION

The absence of ammunition from Article 11’s provisions on diversion, unless subject to prohibitions under Article 6, in particular is significant, especially in light of the heightened vulnerability of much of this materiel to diversion.16 Indeed, it can be argued that ‘measures taken to control unauthorised access to ammunition – such as its acquisition by insurgent or terrorist forces – can have a greater immediate impact on conflict intensity than measures enacted to control weapons alone.’17 This section presents three case studies that illustrate some recent instances of ammunition diversion. They have been selected to highlight not only how diversion may occur, but also how States Parties have attempted to prevent or mitigate it. The cases describe the introduction of pre-export controls to reduce the risk of diversion of man-portable air-defence systems (MANPADS), attempts to trace mortars recovered in northeastern Syria from a suspected Islamic State cell and how the discovery of marked small-calibre ammunition cases helped identify individuals responsible for a homicide in Brazil. The section begins with a brief analysis of data collected by field investigators documenting illicit conventional ammunition in conflict zones.

Since 2011, Conflict Armament Research (CAR) field investigators have documented more than 618,000 units of conventional ammunition that have been diverted into conflict zones.18 One of the most notable features of the information in CAR’s global dataset is that almost half of this diverted conventional ammunition was produced after 2010. By comparison, just 15 per cent of the documented illicit weapons with an identified age were made in the same period. Almost half of CAR’s documented weapons were produced in the 1970s and 1980s (see Figure 1). This finding is consistent across diverse operational contexts and highlights several challenges particular to conventional ammunition. CAR’s field experience demonstrates that conventional ammunition is prone to rapid diversion to illicit armed actors. This may be due to several factors, including: elevated demand because existing stocks have been used or have become unsafe, the relative ease with which ammunition may be stolen or trafficked based on its size, different stockpiling or management practices for ammunition compared to weapons and the ways through which small-calibre ammunition in particular may be available to non-state actors (that is, through commercial sales, including online).

16 A 2020 study of the ATT’s obligations on diversion noted that ‘all States Parties are required to consider the diversion of ammunition/munitions, and parts and components, in relation to the overarching prohibitions contained in Article 6 of the ATT. For example, Article 6(1) requires that States Parties respect Security Council arms embargoes, the scope of which is usually wider than Articles 2(1), 3 and 4 of the ATT. In addition, the ATT prohibitions under Article 6(2) may also require anti-diversion measures covering transfers of ammunition/munitions or parts and components where those measures are required in order to fulfill the obligations which many ATT States Parties have also accepted under the Firearms Protocol.’ See Wood, B. (2020). ‘The Arms Trade Treaty: Obligations to Prevent the Diversion of Conventional Arms’. ATT Issue Brief No.1. United Nations Institute for Disarmament Research (UNIDIR), Conflict Armament Research (CAR), Stimson Center, Small Arms Survey. https://unidir.org/publication/arms-trade-treaty-obligations-prevent-diversion-conventional-arms.


18 Investigators work in partnership with national and local security forces to physically document illicit weapons, ammunition and other military materiel that has been recovered from armed actors, including terrorists. CAR then traces the supply chain for these items to try and establish how it was diverted. For more information, see https://www.conflictarm.com/itrace/.
Figure 2 shows the countries where CAR field investigators have documented conventional ammunition manufactured since the ATT entered into force in 2014 and then subsequently diverted and recovered from non-state armed actors. It shows that non-state armed actors have been able to access recently produced ammunition in almost every country where CAR field investigators are active.¹⁹

Each location in which investigators documented the presence of post-2014 ammunition is highlighted with a red circle. The size of the circle is based on the quantity of ammunition observed at each location. Larger circles, such as in the case of South Sudan, are often associated with single documentations of large quantities of small-calibre ammunition recovered in their original packaging.

¹⁹ Ukraine is the sole exception within CAR’s active operations. CAR field investigators have worked in the country since 2018 to document illicit weapons, ammunition and related military materiel recovered from armed formations of the self-declared Donetsk and Luhansk ‘People’s Republics’. During its operations in Ukraine between 2018 and 2021, CAR did not document any conventional ammunition that post-dated 2014, which was the year in which the conflict began. Since resuming field investigations following the invasion of Ukraine in February 2022, CAR’s investigations have focused on documenting advanced weapon systems deployed by Russian Federation forces in the conflict.
The following case studies illustrate some of the common dynamics concerning conventional ammunition diversion, especially relating to armed conflict. They include instances documented in Ukraine, Syria and Niger by CAR field investigators, as well as the outcome of a judicial investigation into an extrajudicial killing in Brazil that involved tracing the marked small-calibre ammunition used. These cases do not only highlight modalities through which ammunition is often diverted; they also touch on important measures that States Parties may take to help to strengthen ammunition controls in general.

**PRE-EXPORT CONTROLS**

**Case 1: MANPADS lost in battle**

Conducting diversion risk assessments prior to export is a vital preventive measure that States Parties can take to protect potential exports of conventional ammunition. Article 11.2 requires States Parties to assess the risk of diversion only of exports of conventional arms covered under Article 2.1. In so far as the Treaty requires that States Parties extend the risk assessment process to exports of ammunition, this is limited to the risk criteria elaborated under Article 7.1; that is, for example, that the diversion of an item might be involved in the commission or facilitation of an act constituting an offence under international conventions or protocols relating to terrorism.

Technologically advanced conventional ammunition systems, such as ammunition for MANPADS, are considered by states to be particularly sensitive and to require heightened transfer controls, including enhanced risk assessments and the introduction of mitigation measures where appropriate. On 27 September 2018, CAR field investigators documented two Polish-made Grom MANPADS launch tubes – one with a battery coolant unit and one with a missile – that had been recovered by security forces in Ukraine. The Polish company MESKO SA manufactured the tubes in 2007. In response to a trace request issued by CAR, the Polish authorities stated that the Ministry of Economy had authorized the export of the launch tubes and gripstocks to the government of Georgia as part of an agreement between the two governments brokered in November-December 2007. The items were part of a delivery of 100 Grom MANPADS launch tubes and missiles, shipped with non-sequential serial numbers. These items were part of an export licence issued by the Polish Ministry of Economy on 22 October 2007 for export to the end-user, the Georgian Ministry of Defence.

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20 CAR does not have field operations in Brazil and this case is not related to the physical evidence collected by the organization.


24 On 31 October 2018, the government of the Republic of Poland responded promptly to a formal trace request issued by CAR on 4 October 2018. This response confirms that: 1) the Polish Ministry of Economy authorized the export of the Grom E2 MANPADS launch tube with lot number E2-07-21 and serial number 1134, subject to CAR’s trace request, to the government of Georgia as part of an agreement between the two governments brokered in November and December 2007; 2) the Polish Ministry of Economy issued an export licence dated 22 October 2007 for export to the end-user, the Georgian Ministry of Defence; 3) in 2006 and 2007, prior to issuance of the export licence, representatives of the Polish Ministry of Defence, Ministry of Foreign Affairs and Ministry of Economy visited Georgia. These meetings were arranged to provide support to the Georgian army in fulfilling the additional requirements of the Wassenaar Arrangement and in particular, preparing the physical protection for the MANPADS storage and stockpile management; 4) the MANPADS launch tube was part of a delivery of 100 Grom MANPADS launch tubes and missiles (serial numbers 996, 1012-1016, 1023-1032, 1034, 1036-1069, 1072, 1073, 1075-1081, 1083-1091, 1093-1096, 1098, 1099, 1101-1124, 1134) and 16 gripstocks (serial numbers 159-174, 176-185); 5) the Georgian Ministry of Defence stored the equipment in a military base in Senaki (western Georgia); 6) the Polish authorities conducted a post-delivery verification assessment and confirmed that all requirements for secure storage and stockpile management were fulfilled at that time; and 7) during the Russo-Georgian war of August 2008 many of the missiles were used in battle and at least 26 remained in the possession of the Georgian army. However, some were abandoned on the battlefield and taken over by Russian forces. Polish authorities provided the same information regarding the Grom E2 MANPADS with the serial number 1016.
The Polish authorities also informed CAR of several measures taken to prevent the diversion of this sensitive equipment. Before the licenses were issued, representatives of Poland’s Ministry of Defence, Ministry of Foreign Affairs and Ministry of Economy visited Georgia to provide support to the Georgian army in preparing the physical protection for the storage and stockpile management of the MANPADS. These were equipped with individual starting codes to prevent their use by unauthorized users. After the transfer, the Polish authorities also conducted a post-delivery verification assessment and confirmed that all requirements for secure storage and stockpile management were fulfilled at that time.\(^\text{25}\)

Many of the MANPADS transferred under this license were used in battle during the war between Georgia and the Russian Federation in August 2008. While at least 26 of the original shipment remained in the possession of the Georgian army after the war, some were abandoned on the battlefield and taken by Russian forces. CAR sent a trace request for these items to the government of Georgia, which confirmed that the Georgian authorities had not granted any permit for the export of these items.\(^\text{26}\)

Battlefield capture is a commonly observed diversion type. A 2018 analysis by CAR of its global dataset found that, where a point of diversion could be identified, this was the cause of 30 per cent of documented cases of diversion. While this type battlefield capture can occur up to decades after an initial legal transfer, 16 per cent of such cases documented by CAR concerned items manufactured between 2010 and 2018 – meaning that diversion occurred within a few years of initial export, or even sooner as in the case of the Grom MANPADS.\(^\text{27}\) This case shows that the implementation of diversion mitigation measures can help to target and address vulnerabilities, especially regarding the transfer of sensitive materiel, but that it may not be able to eliminate the risk of diversion.

\(^{25}\) This measure is recommended by the International Ammunition Technical Guidelines for transfers of ammunition, such as MANPADS, subject to strengthened procedures.

\(^{26}\) On 21 December 2018, the government of Georgia responded promptly to a formal trace request issued by CAR on 1 November 2018. This response confirms that the Ministry of Defence of Georgia, in its capacity as the licensing agency for military materiel, has not granted a permit for the export of the Grom gripstock with serial number 182, the object of CAR’s trace request. On 21 December 2018, the government of Georgia responded promptly to a formal trace request issued by CAR on 1 November 2018. This response confirms that the Ministry of Defence of Georgia, in its capacity as the licensing agency for military materiel, has not granted a permit for the export of the Grom E2 MANPADS launch tube with lot number E2-07-21 and serial number 1134, the object of CAR’s trace request. On 21 December 2018, the government of Georgia responded promptly to a formal trace request issued by CAR on 1 November 2018. This response confirms that the Ministry of Defence of Georgia, in its capacity as the licensing agency for military materiel, has not granted a permit for the export of the Grom E2 MANPADS launch tube with lot number E2-07-21 and serial number 1016, the object of CAR’s trace request.

TRACING
Case 2: Mortar packaging in northeastern Syria

Tracing, while not explicitly referenced in the text of the ATT, has been consistently demonstrated to be a necessary measure to respond to instances of diversion. It not only shines a light on diversion sources as well as previously unknown vulnerabilities in national control systems; it is also a valuable confidence-building tool between parties to a transfer. Diverted items that are marked with lot numbers can be successfully traced to a specific custodian; often a purchase will be in such large quantities that it encompasses an entire lot. Loose rounds of small-calibre ammunition are effectively untraceable, unless recovered in their original packaging.28

In December 2021, CAR field investigators in northeastern Syria documented weapons and ammunition that local security forces had recovered following a raid against a suspected Islamic State cell in November. The cell had reportedly been preparing a large-scale attack on a local prison. The seizure included a large wooden crate containing fragmentation hand grenades. These grenades were not originally part of the packaged contents, according to markings on the crate itself, which indicated that it had originally contained Serbian-manufactured M87P1 120 mm illumination rounds. These mortar rounds were not recovered with the crate and CAR does not have information on whether the contents were diverted alongside the crate, diverted separately or remain in the possession of the original authorized custodian.

CAR field investigators submitted a formal trace request to the government of Serbia, which responded promptly on 8 August 2022. The response confirmed that the Serbian company Krušik had manufactured the mortar rounds and the related crate in 2018. Krušik sold the materiel, as part of a larger consignment, to a Belgrade-based exporter for export to the United States Department of the Army. Transfer documentation for this export stated that the mortar rounds would be either used directly by the US government for defence purposes ‘which include direct use by or for the United States Government by means of grant aid, International Military Education and Training programs, Foreign Military Sale V7-B-AAD, and other security assistance and Armaments cooperation programs.’29 On 5 August 2018, the consignment was delivered to a logistics base in Croatia operated by the US government.

CAR field investigators have submitted trace requests to the US government in an effort to further clarify the onward chain of custody of this crate but they are yet to receive a formal response and therefore cannot determine the onward legality of the transfer of the items in question. The information provided by the government of Serbia shows that the crate and, potentially its contents, were lost from the custody of an authorized recipient at some point between 5 August 2018 and 8 November 2021. This case is representative of the short time frame for diversion that is commonly observed with conventional ammunition. While the exact circumstances of the diversion have not yet been ascertained, this case demonstrates that it is possible to conduct tracing for some types of diverted conventional ammunition. It also shows that effective tracing depends on the cooperation and transparency of the transfer parties.

A second related example comes from southeastern Niger where in October 2019 CAR field investigators documented 165 weapons and 5,448 rounds of ammunition that national defence and security forces had recovered from militants associated with Jama’atu Ahlis Sunnah Lid-da’awati wal-Jihad (commonly referred to as Boko Haram) and Islamic State West Africa Province.30 CAR field investigators documented several instances of small-calibre ammunition being recovered in its original packaging and traced it with the cooperation of the manufacturing countries to transfers to national security and defence forces in Nigeria. This includes 200 rounds of armour-piercing incendiary ammunition found inside an open metal box. Marks on the exterior of the box refer to a contract number and the intended consignee: Nigeria’s Ministry of Defence. There is no indication of intent to supply militant groups directly; unauthorized actors could have acquired this ammunition as lost on the battlefield or via raids on ammunition storage facilities, for example.31

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29 On 8 August 2022, the government of Serbia responded to a formal trace request issued by CAR on 20 June 2022. This response confirms that: 1) Krušik manufactured the M87P1 120 mm illumination mortar rounds and the related crate bearing the lot number ‘KV Lot 02/18’, the subject of CAR’s trace request, in 2018; 2) Krušik sold the materiel, as part of a larger consignment, to ‘Jugoimport SDPR’ Belgrade, for export to the US; 3) the sale was supported by an export permit dated 10 December 2017 and an end user certificate signed by the Department of the Army (which stated that the listed items were to be used by the US government for defence purposes ‘which include direct use by or for the United States Government by means of grant aid, International Military Education and Training programs, Foreign Military Sale V7-B-AAD, and other security assistance and Armaments cooperation programs’); 4) on 5 August 2018, ‘Jugoimport SDPR’ delivered the consignment to the US government organisation in Croatia, a logistics base operated by the US government in agreement with the government of Croatia; and 5) Alliant Techsystems Operations, LLC. brokered the deal. The government of Serbia included a copy of the supporting documentation letter and end-user certificate in its response to CAR.
31 Formal trace investigations are underway with the Nigerian authorities to determine whether the ammunition belonged to the Nigerian army prior to its diversion.
MARKING

Case 3: Small-calibre ammunition used in extrajudicial killings

Conventional ammunition is manufactured in production runs that range from thousands to millions of units and, as such, are invariably marked with collective identifiers. Each individual unit within a run is marked with the same lot number (for larger-calibre items) or headstamp (for small-calibre cartridges). Unique markings are only typically applied to strategically sensitive ammunition like for MANPADS. Collective identifiers typically contain information that can help to determine the provenance of an item, such as the manufacturer, the year of production, the calibre or the specific lot. They do not uniquely identify an individual unit, and efforts to promote the unique marking of small-calibre ammunition have historically met with some resistance, with the large scale of production being cited as a barrier on the grounds of cost and capacity.\(^{32}\) Instances where governments and industry have taken this step, or have pursued alternative approaches to enhancing the traceability of small-calibre ammunition, show the great potential for such solutions to increase accountability and to prevent diversion.\(^{33}\)

On 18 October 2020, five people were shot and killed in an extrajudicial killing in the city of Quitianopolis, Brazil.\(^{34}\) Police investigations confirmed the involvement of five military police officers who were off duty and out of uniform at the time of the attack. A key factor behind the identification of the culprits was the discovery of marked ammunition casings that had previously been sold to the police forces of the state of Ceará, where the deaths occurred.

Brazilian Federal Law No. 10,826 dictates that small-calibre ammunition must be marked with a ‘traceability code’ when it is sold to national police and armed forces.\(^{35}\) The law entered into force in 2005. Manufacturers are required to apply a different mark for every 10,000 rounds of ammunition produced. This code is made up of three letters and two digits, in the format AAA11. Markings are applied to the headstamp and to the extractor groove.
Inspection of spent casings at the scene in Quiterianopilis identified .40 S&W calibre ammunition with the code CLH60, and 5.56 x 45 mm calibre ammunition with the code CLB75. These codes established that the ammunition used in the killings had been delivered to a police training academy in Ceará in the second semester of 2018 for two training courses due to take place the following year. Based on this information, investigators were able to identify and confirm the participation of three military police officers in securing the ammunition used in this attack.

These cases illustrate some of the ways in which conventional ammunition is diverted, and how States Parties may address this. The implementation of pre-export measures, the marking of ammunition with unique identifiers and the sharing of information between transfer parties, including in response to formal trace requests, are just a few examples of the types of measures that States Parties can take in support of the effective through-life management of conventional ammunition. These cases also show that such measures are not panaceas to the challenges in preventing diversion and controlling conventional ammunition during and after transfer. For example, the effectiveness of tracing depends on the quality of the information shared by transfer parties in response to requests. This in turn typically relies on detailed, comprehensive and accessible record-keeping.

Ammunition marking has been a contentious issue in the past and few manufacturers apply marks to small-calibre ammunition that would facilitate investigations in the case of diversion. As noted in Box 1, these measures were part of a group of holistic and interconnected measures discussed within the OEWG on Conventional Ammunition that seeks to elaborate a set of political commitments that will form a global framework to address existing gaps in through-life ammunition management. The ATT, which remains the only global and legally binding framework to address conventional ammunition transfers, also plays a critical role in creating a platform for discussion of responsible actions to ensure effective transfer controls and in promoting international cooperation and assistance among States Parties. The following section identifies several approaches through which ATT States Parties could explore conventional ammunition controls within the ATT platform.
HOW THE ATT CAN ADDRESS CONVENTIONAL AMMUNITION CONTROLS

There are several opportunities for enhancing conventional ammunition controls within the current scope of States Parties’ discussions. These include: exploring post-shipment cooperation measures applicable to conventional ammunition, sharing operational information relating to ammunition diversion cases with the Diversion Information Exchange Forum and engaging industry and private-sector entities to share information about new initiatives to reinforce and strengthen supply-chain security for transfers of conventional ammunition.

POST-SHIPMENT COOPERATION MEASURES

The work plan of the ATT sub-working group on Article 11 in advance of the Ninth Conference of States Parties (CSP9) in 2023 is focused on exploring post-shipment measures. Several States Parties either have recently introduced or are actively exploring post-shipment cooperation efforts within their national export control system. As noted in a working paper presented by the President of the Eighth Conference of States Parties in 2022 on this topic, post-shipment measures may take various forms but typically constitute a bilateral exercise between exporting and importing states that enable an exporter to ‘perform checks on military equipment after it has been exported and delivered to the end-user to ensure that exported military equipment remains in the possession of the authorised end-user’. Such measures are broadly envisaged within the stipulation under Article 11.2 that States Parties consider mitigation measures to prevent diversion.

As conventional ammunition is a consumable item and stocks of it are purchased with the intent of being expended and replenished, it poses a particular challenge for existing models of on-site inspections that seek to establish that 100 per cent of transferred supplies are still in the custody of the end-user. However, given the persistent observation of recently supplied ammunition in illicit circulation, States Parties should focus particular attention on how to implement post-shipment measures that are suitable and relevant to conventional ammunition. In addition to the security dimension, there is a vital safety dimension to the management of conventional ammunition. With this safety dimension in mind, one way to implement post-shipment measures in the ammunition context could be to link on-site inspections with wider assistance for enhanced management and accountability practices in respect of recipient states’ ammunition stockpiles.

Post-shipment measures are both a mitigation and preventative measure against ammunition diversion, but they do not compensate for a heightened risk that ammunition may be lost or improperly stored by a recipient. It is therefore critical that States Parties, when considering ammunition exports, conduct detailed assessments of the prospective recipient’s track record with regard to ammunition safety and security. Where a prospective recipient has an identified challenge regarding its structural capacity and accountability systems, the supply of new ammunition will only exacerbate underlying security and diversion risks.

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37 Switzerland, one of the countries to first introduce such a system, focuses only on ‘finished products’ such as small arms and light weapons. See UNIDIR, CAR, Stimson Center (2022). ‘Post-shipment measures.’ Responding to Diversion: Issue 01. conflictarm.org/postshipmentmeasures.

38 As noted in a 2022 SIPRI policy brief, while on-site inspections and assistance relating to physical security and stockpile management are two distinct interventions with different objectives, both practices may be informed and strengthened by each other. See Lewis, M. and Malletta, G. (2022). ‘Post-shipment on-site inspections and stockpile management assistance: bridging gaps.’ SIPRI Policy Brief. August 2022. https://www.sipri.org/sites/default/files/2022-08/pb_2208_post-shipment_on-site_inspections_and_stockpile_management_assistance.pdf.
THE DIVERSION INFORMATION EXCHANGE FORUM

The Diversion Information Exchange Forum (DIEF) was established in 2020 during the Sixth Conference of States Parties. It is a sui generis body within the ATT framework and provides a space for States Parties and Signatories to have informal discussions on concrete cases of suspected or detected diversion. Meetings of the DIEF are restricted to States Parties and Signatories, although they can invite non-state experts to present relevant information on concrete diversion cases.39 The establishment of a dedicated operational forum to discuss concrete examples of diversion offers a unique opportunity for multilateral information sharing between States Parties. Other similar forums are restricted to regional groups or blocs of states with similar types of engagement in the arms trade—for example, the Working Party on Conventional Arms Exports, a forum open only to EU member states, and Project DISRUPT, which seeks to develop the capacity of member countries in Central and South America as well as in West and Central Africa to identify trends, routes and patterns in firearms trafficking.40 With participation open to 141 countries at the time of writing, the DIEF is a space to inform a broader cross-regional group of states about concrete, operational diversion-related concerns regarding specific arms transfer activities including corruption, international arms-trafficking routes and common points of dispatch, illicit arms brokers, methods of concealment and sources of illicit supply. The DIEF’s effectiveness as a confidence-building forum relies on the extent and nature of interactions between States Parties; if substantive inputs are not brought forward for open discussion within the forum it will struggle to fulfil its potential to inform and prevent diversion. It is therefore important that States Parties and Signatories take advantage of the opportunity the DIEF offers to present successes and challenges in addressing cases of diversion, the outcomes of which can serve to inform and strengthen cross-border diversion prevention efforts.

INDUSTRY ACTORS ARE IMPORTANT STAKEHOLDERS IN THE ATT. THEY ARE ALSO OFTEN DRIVERS OF TECHNICAL INNOVATION, WHICH MAY BE HARNESSED IN SUPPORT OF EFFORTS TO ADDRESS CHALLENGES WITH SECURING CONVENTIONAL AMMUNITION.

ENGAGEMENT WITH INDUSTRY

Industry actors are important stakeholders in the ATT. They are also often drivers of technical innovation, which may be harnessed in support of efforts to address challenges with securing conventional ammunition. One example of relevant private-sector-led innovation is the embedding of radio frequency identification devices into ammunition packaging or into sensitive ammunition types like anti-tank missiles.41 Another example concerns a commercial solution to apply chemical identification taggants to loose ammunition to enhance its traceability.42 To date, industry representatives have not made significant contributions to the deliberations of the ATT sub-working group on Article 11 or other ATT fora. However, with the thematic focus of CSP9 being the role of industry in the ATT framework, future working group meetings may look to explore how the private sector can contribute to enhancing controls on conventional ammunition.43 In April 2023, the President of CSP9 shared a draft working paper for consideration that encourages industry and private-sector entities to engage in the ATT process to contribute to guidance and information that can support efforts to ensure that transfers do not contravene Treaty provisions outlined in Articles 6, 7, 9 and 11 and to share information on developments that may support effective Treaty implementation.44

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42 AmTag – a taggant developed by two private-sector companies: a policy research organisation and a technology provider – is applied via an atomizing spray onto individual rounds of ammunition as well as to packaging. Each AmTag batch has an individual chemical composition that is linked to a unique code. See Grand-Clément, S. and Kendor, R. (2022).
A SH-2G(I) SEASPRITE HELICOPTER.
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CONCLUSION

The ATT provides a critical platform to consider measures through which transfers of conventional ammunition can be secured and safeguarded. While conventional ammunition is imperfectly addressed within the Treaty and is not included in the scope of several of its key articles relating to import, transit or trans-shipment, brokering and diversion controls, among others, the evidence from working group discussions, initial reporting and plenary interventions is that States Parties are working to apply the Treaty’s core provisions to ammunition as well as arms within their national control systems.

While the Treaty does not integrate references to Article 3 across all its operative articles, it focuses its ammunition-specific obligations on export controls and establishes explicit links to the articles relating to prohibitions (Article 6) and export assessment (Article 7). This in effect enshrines within the Treaty the recognition of the need to ensure that ammunition of all types and calibres is not transferred to actors that could use them to conduct human rights violations, acts of terrorism or war crimes. Given the distinct safety and security issues posed by the diversion of conventional ammunition, and the evidence that recently produced ammunition is often recovered from illicit non-state actors, it is important that States Parties focus particular attention within the Treaty framework on how to secure and safeguard ammunition before, during, and after transfer; that is, promote effective management of conventional ammunition to reduce diversion. This could include exploration of post-shipment cooperation measures and pre-export controls that could reduce the risk of ammunition diversion, the sharing of information relating to ammunition diversion cases and the engagement of specialist expertise to explore creative solutions to protect conventional ammunition from falling into the hands of illicit armed actors.
AN AUSTRALIAN ARMY CH-47 CHINOOK FROM THE 5TH AVIATION REGIMENT FLYS OVERHEAD DURING EXERCISE CHAU PHA IN TOWNSVILLE FIELD TRAINING AREA, QUEENSLAND.

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