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# Life-Cycle Management of Ammunition (LCMA): Lessons learned from Bosnia and Herzegovina

Dr. Jovana Carapic, Small Arms Survey



# Today's session...

- Small Arms Survey, in brief
- LCMA Handbook, overview
  - What is LCMA?
  - LCMA Model?
- LCMA in BiH
  - Why BiH?
  - Lessons learned?
- Conclusion & Next Steps



# Small Arms Survey

- Project of the Graduate Institute of International and Development Studies, Geneva
- Provides reliable, impartial, evidence-based and policy-relevant analysis on all aspects of small arms, their ammunition and armed violence
- Receives support primarily from governments
  - Australia
  - Austria
  - Belgium
  - Canada
  - Denmark
  - Finland
  - France
  - Germany
  - Netherlands
  - New Zealand
  - Nigeria
  - Norway
  - Sweden
  - Switzerland
  - United Kingdom
  - United States

***Benefits from network with international and regional organizations,  
and civil society partners!***



# HANDBOOK

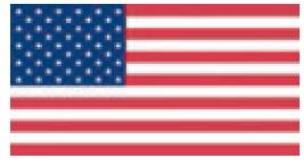
## A Practical Guide to Life-cycle Management of Ammunition

Jovana Carapic, Eric J. Deschambault, Paul Holtom,  
and Benjamin King



**Spring 2018**  
→ **French (CAN)**

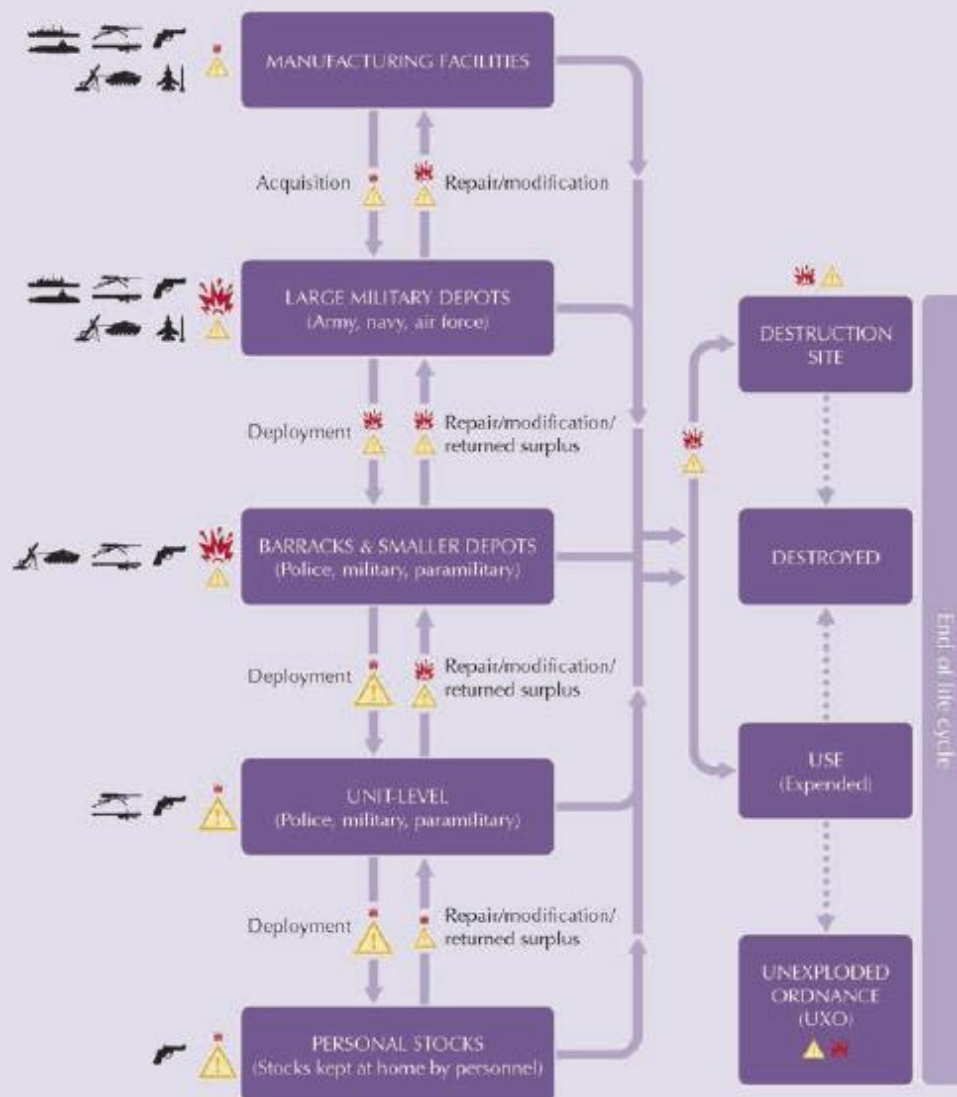
**Annex II**  
→ **Summary of IATG**  
→ **Available:**  
→ **ENG,**  
→ **SPN,**  
→ **FR,**  
→ **BCMS**



# Why LCMA?

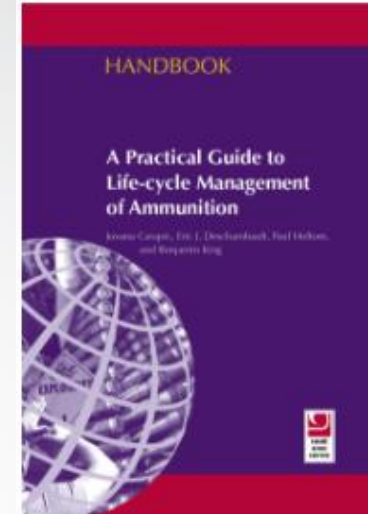
- All national stockpiles – regardless of classification – are at risk of explosion and diversion
- The risk is present across the stockpile chain;
- UEMS and Diversion are consequences of systematic failures in the management of stockpiles.
- Addressing these challenges requires a comprehensive approach.

Figure 2.1 The national stockpile: risks and hazards in the conventional ammunition life cycle



# What is LCMA?

## *A definition*



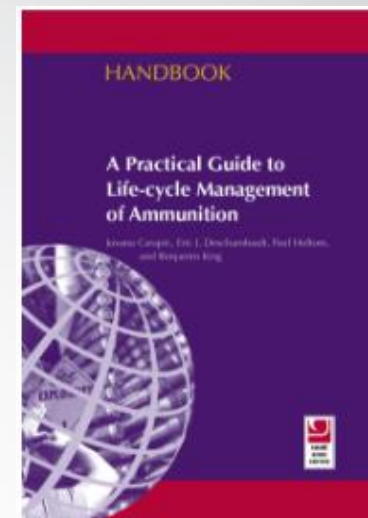
*....a comprehensive set of integrated processes and activities that ensure sustainable and cost-effective management of ammunition, delivering a safe and secure stockpile that meets national strategic and operational needs.*

- **Comprehensive** → by covering all aspects of ammunition management;
- **Integrated system** → within which all of the elements work together;
- **Sustainable** → so that the system can be maintained over time; and
- **Cost-effective** → yielding positive results in relation to its cost.



# What is LCMA?

## *A definition*



- LCMA requires an enabling environment, characterized by a high degree of national ownership with corresponding enabling conditions:
  - suitable normative and organizational framework,
  - adequate infrastructure and equipment, and
  - sufficient financial and human resources.
- States can attain an enabling environment **incrementally**, as they build up their capacity and depending on needs, priorities and resources!



# LCMA Model

Figure 2.2 The Small Arms Survey's LCMA model



Source: Carapic et al (2018), p. 41.



# LCMA Model?

The General LCMA Model was developed through:

- Consultation with ammunition specialists at various conferences (MSAG and SSMA Initiative)
- Review of key documents:
  - **IATG (2015),**
  - NATO AAP-48/ ISO-IEC 15288,
  - OSCE Guidelines (2008/2012),
  - National LCMA systems



Source: Carapic et al (2018), p. 41.

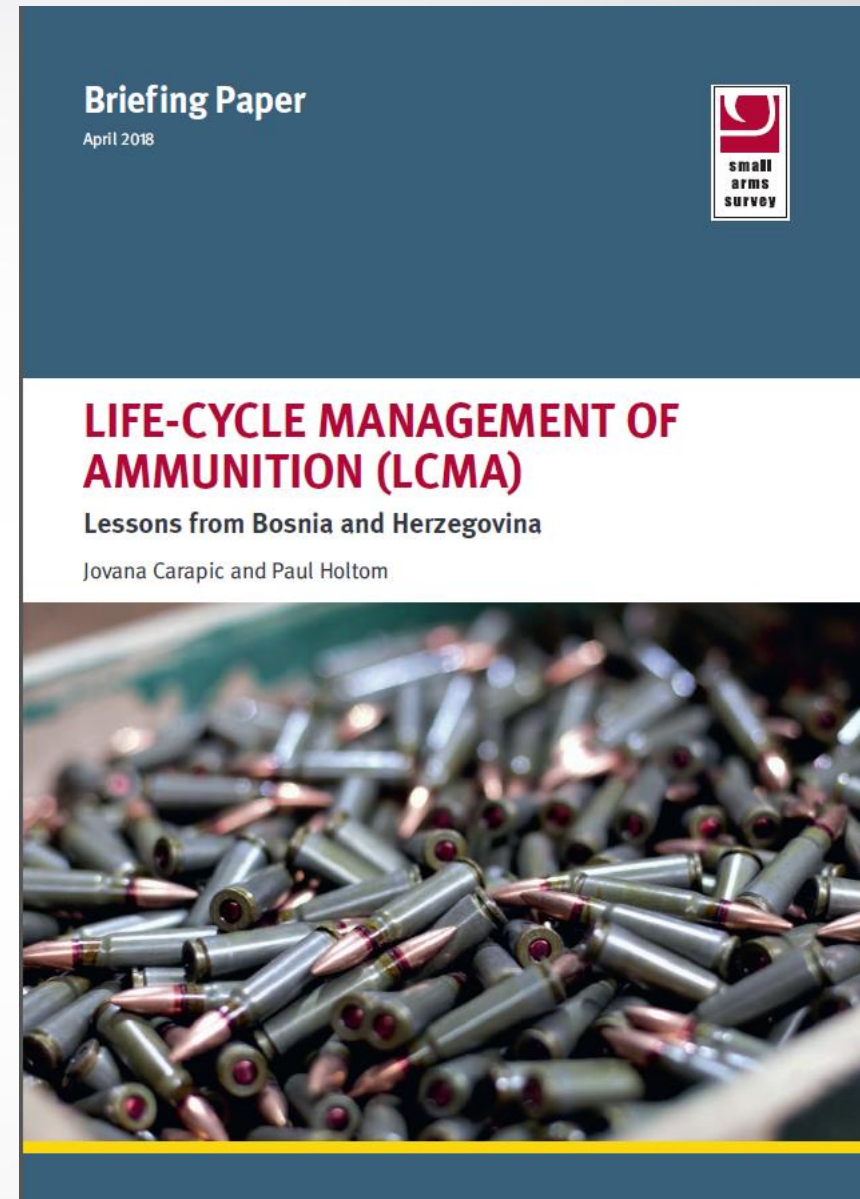
- Annex A – Summary of IATG Thematic Series and Modules
  - Translated into BCMS; German; Spanish; Swahili.
  - Hosted on the UNODA Website
  - A tool to support the UNODA in their efforts to disseminate the IATG



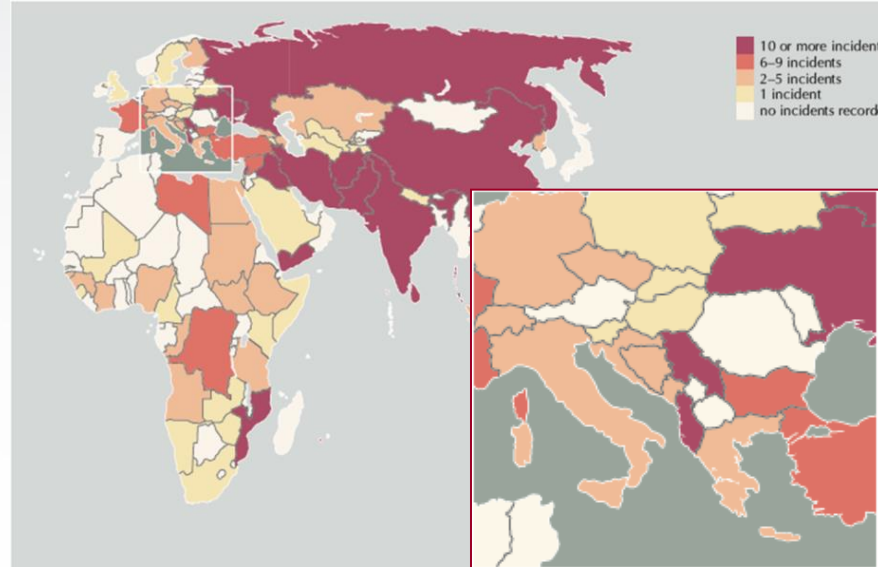
# *LCMA in BiH:*

## *Why BiH?*

- Model case for comprehensive LCMA in prolonged post-conflict settings;
- Illuminating example for both governments undertaking LCMA reform measures, as well as donors assisting such efforts;
- Emphasis on evolution of project and progress (missteps, false starts, and lessons learned);
- Incremental approach to establishing LCMA and ensuring its sustainability.



# LCMA in BiH: UEMS & Diversion



Source: UEMS Database (2015)

- **UEMS DATABASE**
  - About 580 incidents
  - more than 100 countries and territories
  - between 1979 and February 2018
  
- **~9.5% of all UEMS occur in SEE**
  - 55 incidents since 1979
  - More than 750 casualties
  - More than half since 2000

Country	Date	Location	Owner/manager	Total Casualties
BiH	2000.--.--	Bihac	state (military)	0
	2003.06.20	Rabic	state (military)	2
	1999.10.06	Rudo	state (military)	3

Source: UEMS Database (2017)



# *LCMA in BiH: UEMS & Diversion*

- **10% of all UEMS occur in SEE**
  - 55 incidents since 1979
  - More than 750 casualties
  - More than half since 2000
  
- **Few cases of diversion**
  - mostly low-scale

**Table 2** Selected cases of diversion of surplus ammunition and weapons in BiH, 2009–2013

Year	Description of incident
2009	About 8,500 rounds of ammunition and hand grenades disappear from the ASS in Busovaci.
2011	Alleged disappearance of 11 tonnes of TNT explosives from sites guarded by the AFBiH.
2011	47 pistols go missing at the WSS 'TBT' in Visoko, the value of which is estimated at BAM 84,600. Independent observers report that some breechblocks are also stolen from among the artillery pieces stored at the site.
2013	Disappearance of a Fagot anti-tank guided missile from the ASS Kula 2, in Mrkonjic Grad.

Source: Carapic and Holtom (2018)

# ***LCMA in BiH:*** ***Lessons learned***

- 1. National ownership is fundamental for effective LCMA.**
- 2. The coordinated, long-term commitment of international partners is essential for the establishment of LCMA in a post-conflict setting.**
- 3. Implementing effective LCMA in a post-conflict setting requires early agreement on overall objectives, specific priorities, and resource requirements.**



Members of Bosnian Armed Forces, EUFOR, and the EU's Political and Security Committee visit an ammunition storage site in Krupa, Bosnia and Herzegovina, November 2014. Source: Sarajevo Times



# ***LCMA in BiH:***

## ***Lessons learned***

- 4. Sustainable LCMA requires robust organizational structures and appropriate personnel.**
- 5. Successful LCMA rests on a comprehensive inventory of the ammunition stockpile.**
- 6. Stockpile safety depends on an assessment of the condition of stored ammunition.**



40mm smoke rifle grenades found at ammunition storage site (Car Dusan (Rudo) in 2010.  
Source: OSCE/EUFOR



# ***LCMA in BiH:***

## ***Lessons learned***

7. **Adequate resources and capacities are needed for a safe and secure ammunition stockpile.**
8. **Effective and efficient surplus disposal requires adequate normative and institutional frameworks, as well as the necessary political will.**
9. **Serviceable but surplus ammunition may be disposed of through export sales authorized in conformity with a country's international commitments.**
10. **Serviceable but surplus ammunition can also be disposed of through international donation to demonstrate support for international partners.**



A cannon shell is cut as part of the surplus ammunition destruction process in Doboj, February 2015.  
Source: Amel Emric/AP Photo

# ***LCMA Phase II:***

## ***Guiding questions***

What factors are necessary to establish a comprehensive and sustainable LCMA system?

- **If national ownership is so important, how do we create it?**
  - How do we operationalize national ownership?
  - National ownership and ammunition management: from principal to practice?
  - How do we ensure ownership beyond the elites?
  - Accountability and control?
- **If norms and structures are required for national ownership, how do we put them in place?**
  - What is the link between peacebuilding, post-conflict, reconstruction, SSR and ammunition management?
- **How do we ensure sustainability of capacity building efforts?**
  - Capacity building or capacity development?
  - How do we make space for domestic knowledge? Practices?
  - How does a military sustain its knowledge and expertise, especially if there is a limited pool of expertise?
- **What resources are required?**
  - finances, domestic and/or international?
  - Personnel management?
  - Training?



# THANK YOU!



Maison de la Paix, Chemin  
Eugène-Rigot 2E  
1202 Geneva, Switzerland



+41 22 908 5770



Jovana.carapic@smallarmssurvey.org

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Highlights

Publication: The Small Arms Survey 2010: Gangs, Groups, and Guns reviews a range of issues related to gangs and armed groups.

Focus Projects: The Sudan Human Security Baseline Assessment has launched a new Facts & Figures section on its website.

Focus Projects

- Sudan Human Security Baseline Assessment
- Timor-Leste Armed Violence Assessment
- Geneva Declaration on Armed Violence and Development

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Small Arms Survey  
Avenue Blanc 47 | 1202 Geneva, Switzerland  
t +41 22 908 5777 | f +41 22 732 2730  
e info@smallarmssurvey.org

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