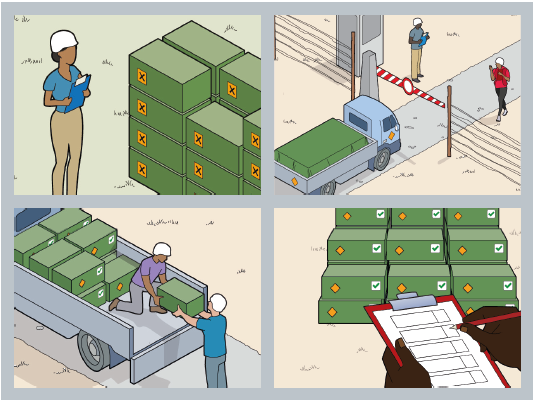
**Weapons and Ammunition Management in UN Peace Operations**

**Pre-course workbook**

****

**About this training**

This training has been developed to help Troop and Police Contributing Countries (T/PCC) in safe and secure weapons and ammunition management while deployed on UN peace operations.

The training is primarily based on the UN Manual on Ammunition Management (UNMAM), published 2020, which covers good practices and procedures in ammunition management for the Military and Police Components of peace operations. The UN uses the International Ammunition Technical Guidelines (IATG) as an underlying set of technical guides and therefore these are referred to during this training. This training also refers to the UN Weapons and Ammunition Management Policy (UN WAM Policy) and the Modular Small-arms-control Implementation Compendium (MOSAIC).

There are two primary references documents to this workbook:

• UN Manual on Ammunition Management (UNMAM).

• UN Weapons and Ammunition Management Policy (UN WAM Policy)

There are also 2 compendiums of technical guides that are referred to and students should be familiar with these prior to attending the training:

• International Ammunition Technical Guidelines (IATG)

<https://www.unsaferguard.org/>

• Modular Small-arms-control Implementation Compendium (MOSAIC)

<https://www.un.org/disarmament/convarms/mosaic/>

In addition, there are also 2 references important for ammunition management in peace operations from the United Nations Contingent Owned Equipment (COE) system. These are referred to during the course and students should be aware of them. It is recommended that students review these publications prior to attending the course.

• Manual on Policies and Procedures concerning the Reimbursement and Control of Contingent-Owned Equipment of Troop/Police Contributors Participating in Peacekeeping Missions (COE Manual 2020)

<https://pcrs.un.org/SitePages/Home.aspx>

• Guidelines on Field Verification and Control of COE and Management of MOU

<https://pcrs.un.org/SitePages/Home.aspx>

**About this workbook**

This workbook is the first component of the Weapons and Ammunition Management in UN Peace Operations training.

**The workbook must be completed before attending the in-person training component.**

This workbook is intended to prepare you for the in-person course, focusing on familiarisation with and understanding of:

• The contents of the UNMAM, UN WAM Policy, IATG and MOSAIC.

• Elements of fundamental knowledge on weapons and ammunition management.

**How to use and complete this pre-course workbook**

This pre course workbook must be completed and submitted on day 1 of the in-person component or as instructed in the logistic note.

The workbook is divided into 2 sections, each with several sub-sections that relate to specified elements of the key reference documents. To assist your learning each sub section has a knowledge check and gives you an opportunity to apply what you have learnt when combined with your existing knowledge, skills and experience. In addition, a scenario which is used during the in-person course is included at the rear of the workbook. Students should read and familiarise themselves with this scenario as it will be used throughout the in-person course.

Estimated time: 25 hours of self-supported study including the preparation of a presentation to be delivered by students on day 1 of the in-person course.

Reading: Each sub-section has recommended reading to support your learning (a selection of pages from the UNMAM or a section of the IATG and MOSAIC). Students are strongly encouraged to complete the recommended reading where possible. However, if you do not have access to the reference documents it is still possible to complete this workbook.

**Workbook contents**

Page

Personal Details and Prior experience 5

List of Acronyms 6

Prior experience of UNMAM 8

Section 1: UNMAM and other key related policies

1.1 UNMAM and other key related policies 10

1.2 Standards of Weapon and Ammunition Storage in UN Operations 18

1.3 International Ammunition Technical Guidelines 24

1.4 Modular Small-arms-control Implementation Compendium 27

1.5 Weapons and Ammunition Advisory Board 29

Section 2: Core Ammunition Management Practices

2.1 Introduction to Risk Management 32

2.2 Explosive Hazard Classification Code 38

2.3 Calculating Explosive Risk 41

2.4 Mitigating Explosive risk 46

Project 50

Glossary of Terms and Definitions 51

Carana Scenario 55

**Personal Details and Prior Experience**

My name is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

My country and military or police unit is:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

My experience of Weapons and Ammunition Management is:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

I will be deployed to the following mission where my responsibilities will be:

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The three biggest challenges or issues which I face related to Weapons and Ammunition Management are:

(1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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After this training I would like to improve how my unit delivers safe and effective Weapons and Ammunition Management by being able to:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**List of Acronyms**

ATO Ammunition Technical Officer

COE Contingent-Owned Equipment

CMMRB Contingent Owned Equipment and Memorandum of Understanding Management Review Board

CG Compatibility Group

CMS Chief of Mission Support

CS Chlorobenzylidene Malononitrile

DDR Disarmament, Demobilization and Reintegration

DG Dangerous Goods

DMS Director of Mission Support

DOS Department of Operational Support

DSS Department of Safety and Security

DPO Department of Peace Operations

EOD Explosive Ordnance Disposal

ELL Explosive Limit Licenses

EM Electro-Magnetic

ES Exposed Sites

ESD Electrostatic Discharge

ESH Explosive Storehouse

FCC Fired Cartridge Case

FD Fire Division

FDS Field Defence Stores

FFE Free from Explosives

FGS Force Generation Service

FPO Fire Protection Officer

FPU Formed Police Units

HD Hazard Division

HE High Explosives

IATG International Ammunition Technical Guidelines

IBD Inhibited Building Distance

IQD Inside Quantity Distance

OQD Outside Quantity Distance

ORI Operational Readiness Inspections

IED Improvised Explosive Device

ISO International Standardization Organization

LD Logistic Division

LOT Identification or batch number

LMG Light Machine Gun

LPS Lightning Protection System

MMG Medium Machine Gun

MOU Memorandum of Understanding

MOSAIC Modular Small-Arms-control Implementation Compendium

NEQ Net Explosive Quantity

OAEC Operational Ammunition Expenditure Certificate

OHP Over Head Protection

OMA Office of Military Affairs

PCC Police Contributing Country

PD Police Division

PDV Pre-deployment Visit

PES Potential Explosion Site

PTRD Public Traffic Route Distance

QD Quantity Distance

QRA Quantitative Risk Analysis

SATO Senior Ammunition Technical Officer

SKP Soft Kinetic Projectiles

SOFA Status of Forces Agreement

SOP Standard Operating Procedures

SRA Security Risk Assessment

SUR Statement of Unit Requirements

TCC Troop Contributing Country

TNT Trinitrotoluene

TD Temporary Distance

TOD Tour of Duty

UCSD Uniformed Capabilities Support Division

UNODA United Nations Office of Disarmaments Affairs

UNMAM United Nations Manual on Ammunition Management

UNMAS United Nations Mine Action Service

UNPO United Nations Peace Operations

UNPOL United Nations Police

UXO Unexploded Ordnance

WAAB Weapons and Ammunition Advisory Board

WAM Weapons and Ammunition Management

WP White Phosphorus

**Prior experience of UNMAM**

Learning Objective: assess your knowledge and experience of the UNMAM before the training course.

Estimated time: 20 mins

How familiar are you with the UNMAM?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If you have previously used the UNMAM describe how:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

True or false

|  |  |
| --- | --- |
| The principles and procedures for the safe, effective and efficient storage, handling, transport and use of ammunition differ from when the ammunition and explosives are in a permanent explosive storage area or whether they are held in temporary storage locations. | **TRUE** |
| **FALSE** |

|  |  |
| --- | --- |
| The UNMAM is to be used by investigators to attribute blame or negligence. | **TRUE** |
| **FALSE** |

|  |  |
| --- | --- |
| The UNMAM only addresses critical ammunition safety elements related to storage. | **TRUE** |
| **FALSE** |

|  |  |
| --- | --- |
| Calculation of the levels of operational ammunition shall be done by considering the mission mandate, the threat within the mission and tempo of likely operations. | **TRUE** |
| **FALSE** |

What positive impacts do you think the UNMAM has/will have?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Safe and secure management of ammunition on UN peacekeeping operations is vitally important. Give 3 reasons why this is true:

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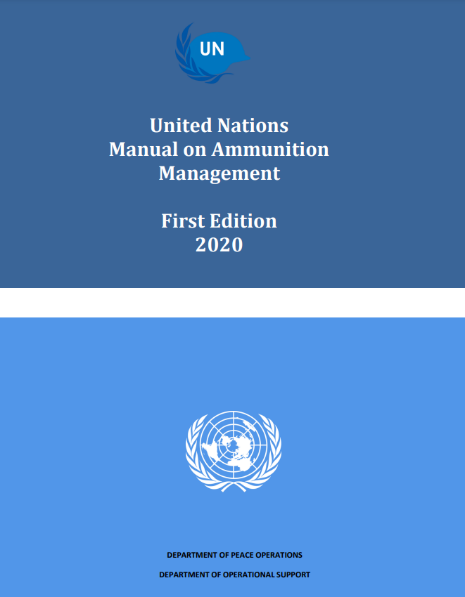
3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hazard identification

|  |  |  |  |
| --- | --- | --- | --- |
| Hazard Division 4 - |  |  | a. Ammunition that has a projection hazard but not a mass explosion hazard. |
| Hazard Division 1 - |  |  | b. Ammunition that has a mass explosion hazard. |
| Hazard Division 2 - |  |  | c. Ammunition that has a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard. |
| Hazard Division 3 - |  |  | d. Ammunition that presents no significant hazard. |

**Section 1.1: UNMAM and other key related policies**

**UNMAM**

Learning Objective: Describe the purpose of the UNMAM and the relevance of the manual to T/PCCs

Key Learning Points:

• State the purpose of the manual

• State the chapters in the manual

• State the contents of each chapter

• Describe the relevance of the manual to T/PCCs

• Describe how the manual will be used in the training

Estimated time: 60 mins

Reading: UNMAM pages 1-10

**Content**

Purpose of the UNMAM

The manual covers good practices and standard procedures of ammunition management for the Military and Police Components of peace operations, based on the IATG.

Designed with input from DPO, DOS, field missions, ammunition experts from member states as well UNMAS, the UNMAM details the comprehensive control measures for storage, safety and logistics for ammunition in the UN context. It also provides guidance for the quantity of ammunition required for training and operations. The manual makes frequent reference to the IATG standards and includes consideration for range management and the environmental impact of ammunition usage.

**Contents of the UNMAM**

The manual is subdivided into six chapters:

UNMAM - Chapter 1: Standards of Ammunition Storage in UN Peace Operations

This chapter is designed to provide common standards for the storage of ammunition and general safety norms and practices based on international regulations and guidance to minimize the risk posed by stockpiles of ammunition. It provides the basic specifications for the ammunition container as required by the UN. The IATG are used as a basis for guidance provided herein and are cited throughout accordingly.

Chapter 1 Contents

* 1.1 Introduction
* 1.2 Critical Ammunition Safety Elements Under United Nations Peace Operations
* 1.3 Ammunition Storage Container
* 1.4 Temporary Ammunition Storage Site
* 1.5 Location of Ammunition Storage Area
* 1.6 Ammunition Management
* 1.7 Physical Protection and Security
* 1.8 Fire Protection
* 1.9 Electro-Magnetic Radiation Protection
* 1.10 Weather Protection
* 1.11 Electrical Safety
* 1.12 Desirable Safety Distances
* 1.13 Barricades
* 1.14 Accident Report and Investigation
* 1.15 Inspection and Evaluation

UNMAM - Chapter 2: Levels of Operational Ammunition

This chapter provides guidance to T/PCCs prior to initial deployment regarding the minimum and maximum levels of ammunition per weapon/person and type, based on the operational and logistic requirements for each type of unit in a specific peace operation.

Chapter 2: Contents

* 2.1 Introduction
* 2.2 Factors Considered
* 2.3 Guiding Documents
* 2.4 Calculation of Levels of Operational Ammunition
* 2.5 Mission-Specific Requirement of Operational Ammunition
* 2.6 Confirmation of the Type and Level Ammunition during pre-deployment visits (PDV)

UNMAM - Chapter 3: Shelf Life of Ammunition

The chapter prescribes the recommended shelf life of ammunition based on storage/climatic conditions and an upper age limit of ammunition to be deployed in the mission area.

Chapter 3: Contents

* 3.1 Introduction
* 3.2 Purpose of Determining Shelf Life
* 3.3 Ageing and Degradation of Ammunition
* 3.4 Determining Shelf Life
* 3.5 Upper Age Limit of Ammunition

The chapter provides procedures to be taken after ammunition expiration. This chapter also describes a process to replenish and dispose of expired ammunition.

Chapter 4: Contents

* 4.1 Introduction
* 4.2 Identification of Expired Ammunition
* 4.3 Disposal of Unserviceable Ammunition
* 4.4 Processing of Operational Ammunition Expenditure

UNMAM - Chapter 5: Serviceability Checks and Training for Small Arms Training

This chapter sets the requirement and standards for weapons firing training by T/PCCs to confirm the serviceability of weapons. Although training ammunition is a national responsibility, this chapter offers guidelines to regulate the scales and standardizes the ammunition stockpile in the mission which affects its safety and storage.

Chapter 5: Contents

* 5.1 Introduction
* 5.2 Requirement of Training/Practice Firing Ranges
* 5.3 Determination of Scale
* 5.4 Determination of Scale
* 5.5 Conduct of Firing

UNMAM - Chapter 6: Annexes

Chapter 6: Annexes

* A Ammunition Container Specifics
* B Fire and Emergency Plan Responsibilities and Organization
* C Inspection Template; Appendix 1 Ammunition Inspection Report
* D Senior Ammunition Technical Officer Competences & Responsibility
* E The Calculation of Ammunition for Infantry Weapons
* F The Calculation of Ammunition for Armor Weapons
* G The Calculation of Ammunition for Artillery Weapons
* H The Calculation of Ammunition for Military Aviation/Aircraft
* I The Calculation of Ammunition for Explosive Ordnance Devices
* J The Calculation of Ammunition for UN Police
* K The Calculation of Training Ammunition for Military Aviation Units
* L Range Siting Boards and Range Safety Boards
* M Acronyms
* N Terms and Definitions
* O References

**International Organization for Standardization standard terminology**

The manual uses the words “shall,” “must”, “should” and “may/can” to express provisions in accordance with their usage in International Organization for Standardization (ISO) standards:

* **Shall/Must**: indicates a requirement. It is used to indicate requirements strictly to be followed.
* **Should**: indicates a recommendation. It is used to indicate that, among several possibilities, one is recommended as particularly suitable, without mentioning or excluding others, or that a certain course of action is preferred but not necessarily required, or that (in the negative form, "should not") a certain possibility or course of action is not necessarily recommended but not prohibited.
* **May**: indicates permission. It is used to indicate a course of action permissible within the limits of the document.
* **Can**: is used for statements indicating possibility and capability, whether material, physical or causal.

**Relevance of the UNMAM to T/PCCs**

The UNMAM will assist troop and police contributing countries to promote and strengthen the safety of ammunition stockpiles, improve storage facilities, and improve the logistical aspects of ammunition under field storage. It also highlights the need for the remediation of firing ranges following their closure.

How the UNMAM will be used in this training

The UNMAM is the primary reference document for this training, supported by IATG. Students are strongly encouraged to familiarise themselves with the manual where possible and use it both to complete this pre-course workbook and the in-person training package.

The training also refers to the UN Policy on Weapons and Ammunition Management and the Modular Small Arms Control Implementation Compendium (MOSAIC).

**Knowledge check**

**True or false**

|  |  |
| --- | --- |
| The UNMAM is based on the IATG. | True  False |
| The UNMAM replaces the IATG. | True  False |
| The UNMAM is for use on UN peace operations only. | True  False |

**Match the following statements (LEFT TO RIGHT) indicate your choice in the second column:**

|  |  |  |  |
| --- | --- | --- | --- |
| Serviceability Checks and Training for Small Arms Training |  |  | 1. Chapter 3. Based on storage/climatic conditions and an upper age limit of ammunition to be deployed in the mission Area, this chapter prescribes the recommended shelf life of ammunition. |
| Quantity and separation distances |  |  | 1. Chapter 5. Guidelines to regulate the scales and standardizes the ammunition stockpile in the mission which affects its safety and storage. |
| Standards of Ammunition Storage in United Nations Peace Operations |  |  | 1. Chapter 4. Procedures to be taken after ammunition expiration. |
| Levels of Operational Ammunition |  |  | 1. Chapter 1. Provides common standards for the storage of ammunition and general safety norms and practices based on international regulations and guidance to minimize the risk posed by stockpiles of ammunition. |
| Shelf Life of Ammunition |  |  | 1. Not a UNMAM chapter |
| Expiration, Replenishment and Disposal. |  |  | 1. Chapter 2. Guidance based on the operational and logistic requirements for each type of unit in a specific peace operation. |

Please write a short 1 sentence answer to each of the following questions:

Which chapter has information on minimising the risk posed by stockpiles of ammunition?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Terms and definition, True or false:**

|  |  |
| --- | --- |
| Ammunition Accident is defined as any incident involving ammunition or explosives that results in, or has potential to result in, death or injury to a person(s) and/or damage to equipment and/or property, military or civilian. | True ☐  False ☐ |
| Hazard division is a grouping identified by a letter which, when referenced to a compatibility table, shows those explosives which may be stored or transported together without significantly increasing the probability of an accident or, for a given quantity, the magnitude of the effects of such an accident. Codes are used to indicate which explosives and compounds may be safely stored together. | True ☐  False ☐ |
| Illumination Ammunition is defined as ammunition designed to produce a single source of intense light for illuminating an area. The term includes illumination cartridges, grenades and projectiles, as well as illuminating and target identification bombs. | True ☐  False ☐ |
| Hazard Class is the United Nations system of twelve classes for identifying dangerous goods. Class 1 identifies explosives. | True ☐  False ☐ |
| Inhabited Building is a building or structure not occupied in whole or in part by people (usually civilian). Used synonymously with non-occupied building. | True ☐  False ☐ |
| High explosives can be ignited to produce light, smoke or noise. | True ☐  False ☐ |
| Safeguarding is the result of measures taken to prevent entry by unauthorized persons into explosive storage areas, theft of explosive ordnance and acts of malfeasance, such as sabotage. | True ☐  False ☐ |
| A magazine is an approved box, cylinder, metal liner or receptacle that is designed to contain explosive articles or explosives substances. It normally forms part of an ammunition container assembly. | True ☐  False ☐ |
| Security checks are a systematic method of evaluating the properties, characteristics and performance capabilities of ammunition throughout its life cycle in order to assess the reliability, safety and operational effectiveness of stocks and to provide data in support of life reassessment. | True ☐  False ☐ |
| Potential Exposed Site (PES) is the location of a quantity of explosives that will create a blast, fragment, thermal or debris hazard in the event of an explosion of its content. | True ☐  False ☐ |

What are suitable considerations for fixing the upper age limit of ammunition being deployed:

1. To help retains its value
2. It is a good way to get rid of older stocks
3. In case of redeployment from one mission to another
4. To provide “safe to deploy” ammunition in support of peacekeeping operations
5. It will compensate for poor storage

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. | e. |

**Which chapter has information on the shelf life of ammunition?**

1. Chapter 2
2. Chapter 3
3. Chapter 5
4. Chapter 6
5. Chapter 4

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. | e. |

**Which Annex relates to the basic specifications for the ammunition container?**

1. Annex L
2. Annex C
3. Annex A
4. Annex D
5. Annex J

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. | e. |
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Where would you find information on the upper age limit of ammunition?

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Which chapter has information on the basic specifications for the ammunition container?

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Which Annex relates to the basic specifications for the ammunition container?

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How many Annexes cover calculations?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Apply what you know

How do you think the UNMAM will strengthen the safety of ammunition stockpiles? Use your own experience if possible.

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**Section 1.2. Standards of Weapons and Ammunition Storage in UN Operations**

Learning Objective: Describe how to apply the Standards of Ammunition Storage to secure and manage explosive materials and ammunition storage sites

Key Learning Points:

• List the key UN policies and guiding documents on weapon and ammunition management.

• State the key roles and responsibilities between the UN and T/PCCs

• State the roles and responsibilities of the Weapons and Ammunition Advisory Board (WAAB)

• List the minimum data requirements for UN ammunition registry

• Describe the application of the UNMAM

Estimated time: 90 mins

Reading: UNMAM pages 11 - 18

**Content**

List the UN policy and guiding documents on weapon and ammunition management

• UNMAM

• UN Weapons and Ammunition Management Policy

• International Ammunition Technical Guidelines

• Modular Small-arms-control Implementation Compendium

State the key roles and responsibilities between the UN and T/PCCs

• The most common approach is that each T/PCC will be responsible for controlling and managing their own ammunition storage facilities.

• In accordance with the COE Manual, contingents that are responsible for minor engineering capabilities under the self-sustainment category should provide the fortification plan and work in close coordination with the UN on the construction of ammunition storage fortification.

• Occasionally, due to logistic or safety reasons, ammunition might be centralized under a single deposit and have shared management.

• When this occurs, field missions will have to draft specific Standard Operating Procedures based on this manual and adhere to the IATG 04.10 specifications.

State the roles and responsibilities of the Weapons and Ammunition Advisory Board (WAAB)

• WAAB is responsible for advising the Mission’s Senior Management Team on all aspects of weapons and ammunition management (WAM).

• The WAAB forms a framework for managing all ammunition-related elements.

• The WAAB provides a platform to address issues and concerns and ensures that critical ammunition safety matters are addressed.

List the minimum data requirements for UN ammunition registry

While national templates may be used by T/PCCs, the UN ammunition registry at FHQ/PHQ level shall contain, at the minimum, the following data:

• Associated Ammunition Category (Hazard Classification Code and Fire Division)

• UN number (provided by the UN Committee of Experts on the Transport of Dangerous Goods)

• Type

• Caliber

• LOT and batch number

• Shelf life (end date) of each LOT/batch (in the absence of the manufacturer’s expiry date T/PCCs shall provide the certification)

• Quantity of each type

• Location

• Purpose of ammunition

• Date and time of last (national) inspection before shipment

• Date and time of production

Describe the application of the UNMAM

The UNMAM provides good practices and standard procedures of ammunition management for the Military and Police Components of peace operations, based on the IATG.

It covers the contingent-owned ammunition for troop and police contributing countries in order to:

• Promote and strengthen the safety of ammunition stockpiles,

• Improve storage facilities,

• Improve the logistical aspects of ammunition under field storage

• Highlight the need for remediation of firing ranges following their closure.

The manual does not cover aspects of Disarmament Demobilization Reintegration (DDR) ammunition, United Nations-Owned Equipment (UNOE), and ammunition seized and/or recovered by the force or any other mission entity which will be handled separately by the mission DDR/Explosive Ordnance Disposal (EOD) Unit and/or the United Nations Mine Action Service (UNMAS).

All UN civilian and uniformed personnel serving in UN peace operations, both at United Nations Headquarters (UNHQ) in the DPO, the Department of Operational Support (DOS) and in the field missions dealing with ammunition owned by T/PCCs, i.e., Contingent-Owned Equipment (COE) must comply with this manual and adhere to its safety standards.

**Knowledge check**

**Please select true or false answer:**

|  |  |
| --- | --- |
| The most common approach is that each UNHQ will be directly responsible for controlling and managing contingent owned ammunition storage facilities. | True  False |
| Civilians working on UN operations do not need to comply with UNMAM. | True  False |
| The UNMAM does not cover aspects for the management of ammunition seized and/or recovered by the force. | True  False |

Please write a short answer to each of the following questions:

By covering the management of contingent-owned ammunition for T/PCCs list 4 things that the UNMAM aims to achieve:

1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**The SATO is responsible for:**

|  |  |  |
| --- | --- | --- |
| **Responsibilities** | **YES** | **NO** |
| Coordinate risk assessments in connection with ammunition and explosives. |  |  |
| Providing firing ranges |  |  |
| Disposal of unserviceable ammunition |  |  |
| Provide technical assistance and advice in connection with the safety, storage and maintenance standards of ammunition and explosives held by the units of T/PCCs. |  |  |
| Act as WAAB Manager |  |  |
| Maintaining ammunition accounts and records |  |  |
| Protection of ammunition from fire, as well as  for the protection of personnel from fire hazards involving ammunition |  |  |
| Act as the senior ammunition specialist and safety officer and be responsible for advising the Force Commander on all ammunition and explosives safety matters |  |  |
| Producing the necessary fire protection plans |  |  |
| Develop and operate of the ammunition storage licensing system in accordance with IATG Clause 2.30, “Licensing of Explosive Facilities”. |  |  |

**The following acronyms stand for, type in your answer:**

|  |  |
| --- | --- |
| IATG |  |
| IED |  |
| IBD |  |
| ES |  |
| TD |  |
| NEQ |  |
| SATO |  |
| WAAB |  |
| HD |  |
| FFE |  |

Occasionally, due to logistic or safety reasons, ammunition might be centralized under a single deposit and have shared management. If this was to happen describe what the field mission has to do to comply with the UNMAM?

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The WAAB consists of how many posts?:

1. 6
2. 9
3. 3
4. 5
5. Whoever is available

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. | e. |
|  |  |  |  |  |

Who, according to the UN MAM, commonly is responsible for controlling and managing ammunition storage facilities?:

1. Commanding Officer of the T/PCC
2. Each T/PCC is responsible for their own ammunition and storage facility with the SATO and WAAB providing oversight
3. SATO
4. The WAAB
5. Mission Chief of Staff

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. | e. |

Apply what you know

In your own words describe why you think it is important for UN civilian and uniformed personnel serving on peace operations to comply with the UNMAM and adhere to its safety and security standards?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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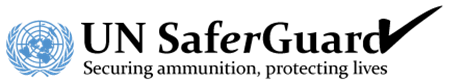
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**1.3 International Ammunition Technical Guidelines**

Learning Objective: Describe how the IATG relate to the UNMAM

Key Learning Points:

• State the purpose UN SaferGuard programme

• State the content and purpose of the IATG

• Explain the relationship with the UNMAM

Estimated time: 90 mins

Reading: 01.10 – Guide to the International Ammunition Technical Guidelines (IATG)

**Content**

State the purpose of the UN SaferGuard Programme

In more than 100 countries, over the past five decades, poorly managed ammunition stockpiles have resulted in explosions, often bringing about humanitarian disasters. Thousands of people have been killed, injured and displaced, and the livelihoods of entire communities have been disrupted.

In addition to the humanitarian and socio-economic consequences, unsecured or poorly managed ammunition stockpiles fuel insecurity. Massive diversion of ammunition to illicit markets has been a catalyst for armed conflict, organized crime and terrorism. Moreover, diverted ammunition is increasingly used to assemble improvised explosive devices.

Taken together, these consequences demonstrate the very serious safety and security challenges posed by inadequately managed stockpiles.

In response to these concerns, the General Assembly requested the UN to develop guidelines for adequate ammunition management to ensure that the UN consistently delivers high-quality advice and support (General Assembly resolution A/RES/63/61).

As a result, the IATG were developed in 2011 and the UN SaferGuard Programme was established as the corresponding knowledge management platform.

The UN SaferGuard Programme is managed by the UNODA who oversee the maintenance, updating and dissemination of the IATG.

State the content and purpose of the IATG

• The IATG form a frame of reference to achieve and demonstrate effective levels of safety and security of ammunition stockpiles.

• They provide a coherent approach, are based on sound and accepted explosive science, recommend an integrated risk and quality management system, and allow for a progressive, integrated improvement in safety and security in line with available resources.

The IATG are grouped as follows:

01. Introduction and Principles of Ammunition Management

02. Risk Management

03. Ammunition Accounting

04. Explosive Facilities (Storage) (Field and Temporary Conditions)

05. Explosive Facilities (Storage) (Infrastructure and equipment)

06. Explosive Facilities (Storage) (Operations)

07. Ammunition Processing

08. Transport of Ammunition

09. Security of Ammunition

10. Ammunition Demilitarization and Destruction

11. Ammunition Accidents, Reporting and Investigation

12. Ammunition Operational Support

Explain the relationship with the UNMAM

The UNMAM incorporates the IATG and standardizes good practices and approaches already developed in the field missions with a view to improving and enhancing the safety and security of ammunition in the field.

**Knowledge check**

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| --- | --- |
| All the information you need is in the UNMAM and if you have that then you do not need to refer to the IATG. | True  False |
| The UN Saf*er*Guard Programme is freely available online. | True  False |
| Poorly managed ammunition does not have a humanitarian impact. | True  False |

Which of the following statement is NOT why the IATGs were developed:

a. to assist States to establish national standards and national standing operating procedures (SOPs)

b. to improve safety, security, and efficiency and efficacy in conventional ammunition stockpile management

c. to provide Nations with specific off the shelf SOPs

d. to assist national authorities in the development of national conventional ammunition stockpile management processes and procedures

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. |  |

Please write a short answer to each of the following questions:

Briefly describe why the IATG were developed:

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What is the relationship between the UNMAM and the IATG?

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Apply what you know

Please describe how you have previously applied IATG in your job role. If the IATG are new to you then please describe how you think they will be of use.

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**1.4 Modular Small-arms-control Implementation Compendium (MOSAIC)**

Learning Objective: Describe how the MOSAIC relate to UN Peace Operations

Key Learning Points:

* State the purpose of the MOSAIC
* State the content of the MOSAIC

Estimated time: 90 mins

Reading:

* 05.20 Stockpile management: Weapons
* 05.30 Marking and recordkeeping

**Content**

State the purpose of the MOSAIC

MOSAIC translates into practice the objectives of key global agreements aiming to prevent the illicit trade, destabilizing accumulation and misuse of small arms and light weapons.

These include:

* the Programme of Action on the illicit trade in small arms and light weapons
* the International Tracing Instrument
* the Firearms Protocol supplementing the UN Convention against Transnational Organized Crime
* the Arms Trade Treaty.

MOSAIC modules are based on good practices, codes of conduct and standard operating procedures that have been developed at (sub-)regional levels.

Properly basing small-arms control endeavours on MOSAIC modules, reduces the risk of weapons falling into the hands of criminals, armed groups, terrorists and others who would misuse them.

The most relevant modules for weapon management on UN Peace Operations are 05.20 and 05.30.

The MOSAIC is grouped as follows:

* Series 01 – Introduction to MOSAIC
* Series 02 – SALW Control in Context
* Series 03 – Legislative and Regulatory
* Series 04 – Design and Management
* Series 05 – Operational Support
* Series 06 – Crosscutting Issues

**Knowledge check**

|  |  |
| --- | --- |
| Weapons and ammunition shall be stored together when not required for use. | True  False |
| The stockpile risk assessment should consider both active and passive threats. | True  False |
| Keys shall be accessible only to authorized personnel whose duties require them to have access to the weapons. | True  False |

Apply what you know

Please describe how you have previously applied the MOSAIC in your job role. If the MOSAIC are new to you then please describe how you think they will be of use.

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**1.5 Weapons and Ammunition Advisory Board**

Learning Objective: Describe the role and function of the Weapons and Ammunition Advisory Board in relation to the UNMAM.

Key Learning Points

• State the structure and purpose of the Weapons and Ammunition Management Advisory Board.

• Describe how the Weapons and Ammunition Management Advisory Board relates to the UNMAM.

Estimated time: 90 mins

Reading: UNMAM pages 12 & 13.

**Content**

State the structure and purpose of the Weapons and Ammunition Management Advisory Board

The Weapons and Ammunition Management Advisory Board (WAAB) shall be composed of the following:

• Mission Chief of Staff or an equivalent level senior official: Chair of the Board.

• Head of Military and Police Components, or designated representative.

• Senior Ammunition Technical Officer (SATO): The SATO in field missions will serve as the principal ammunition safety advisor for the T/PCCs and will act as the WAAB Manager.

• Other Explosives and Weapons Specialists: If any explosives and weapons experts are available in the mission they shall also act as members of the board (for example UNMAS experts).

• Unit Points of Contact The senior T/PCC representative in the field missions shall nominate points of contact, in connection with ammunition, and maintain a technical network of contacts and provide contact details to the SATO.

• Mission Support COE Unit: The COE unit is responsible for checking if the T/PCC has conducted all works under its responsibility related to the storage facilities. The unit shall also organize verification of the ammunition levels of each T/PCC through the SATO.

• Mission Support Engineering Section: The Engineering Section should provide engineering support for camp construction and include the camp security module as suggested by WAAB in the overall camp layout.

• UNDSS: UNDSS should provide technical support in connection with fire safety and security of Ammunition Storage.

• Medical Service: The medical service should provide advice on availability of immediate medical support in case of an accident associated with Ammunition Storage.

Describe how the Weapons and Ammunition Management Advisory Board relates to the UNMAM

The field mission shall establish a WAAB as stipulated in the DPPA/DPO/DOS/DSS Policy on Weapons and Ammunition Management. The WAAB shall be responsible for advising the Mission’s Senior Management Team on all aspects of weapons and ammunition management (WAM). The WAAB forms a framework for managing all ammunition-related elements. The WAAB provides a platform to address issues and concerns and ensures that critical ammunition safety matters are addressed. The frequency of board meetings is dependent on the operational tempo but should occur no less than once per month. Minutes of the meetings should be recorded and distributed to the mission senior management team and WAAB members. Specialists from other related fields such as engineering, medical and United Nations Department of Safety and Security (UNDSS) may be invited to advise the board. Recommendations of the WAAB requiring action by a T/PCC will be raised to the mission COE/MOU Management Review Board (CMMRB) for elevation to UNHQ.

**Knowledge check**

|  |  |
| --- | --- |
| The Weapons and Ammunition Management Advisory Board is chaired by SATO? | True  False |
| The COE unit is responsible for checking if a T/PCC has conducted all works under its responsibility related to the storage facilities. | True  False |
| The Mission Support Engineering Section should not be included in the WAAB as they will simply have to do what they are instructed to do by the Chair | True  False |

Who in the WAAB shall be responsible for advising on all aspects of weapons and ammunition management (WAM):

1. Fire chief
2. SATO
3. Camp Commander
4. UN mission commander
5. Medical chief

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. | e. |

Who should the senior T/PCC senior representative in a field mission nominate as points of contact to in connection with ammunition:

1. Infantry Commander
2. The oldest logistician on camp
3. Chief Cook
4. Unit representatives
5. Mayor of the nearest village

|  |  |  |  |  |
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| a. | b. | c. | d. | e. |

Please write a short answer to the following question:

Describe the function that the SATO has on the WAAB?

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**Apply what you know**

Describe how you have previously interacted with a WAAB including both positive and negative experiences. If you have no experience of interacting with a WAAB please describe the benefits and challenges that you expect when you deploy on UN peace operation.

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**Section 2: Core ammunition management practices**

**Section 2.1 Introduction to risk management**

Learning Objective: Describe the application of risk management to explosives storage

Key Learning Points:

• Define an explosive event

• State the IATG Concept of Safety

• Define risk, tolerable risk and ALARP

• List the factors that influence the severity of the hazard at a potential explosion site

• Define Risk categories

Estimated time: 120 mins

Reading: IATG 02.10 – Introduction to Risk Management Principles

**Content**

Define an explosive event

An unexpected and undesired initiation of an explosive substance or article within an ammunition depot leading to significant or catastrophic consequences.

State the IATG Concept of Safety

Safety is achieved by reducing risk to a tolerable level, which is defined in IATG 02.10 as tolerable risk. There can be no absolute safety; some risk will remain - this is the residual risk.

Define risk

A combination of the probability of occurrence of harm and the severity of that harm.

Risk = Likelihood x Consequence

Define Tolerable risk

The risk that is accepted in a given context based on the current values of society.

State the ALARP

ALARP is an abbreviation for ‘As low as reasonably practicable’.

List the factors that influence the severity of the hazard at a potential explosive site

• The quantity of ammunition being stored.

• The hazard classification.

• The physical and chemical stability of the ammunition.

• The physical condition of the PES.

• The proximity and distances to people and Exposed Sites

Categorisation of risk

There are 3 categorisations of risk in IATG 02.10 – Introduction to Risk Management Principles:

**Catastrophic.** Undesirable event leading to multiple fatalities and/or serious injury to individuals and/or significant loss or damage to critical equipment or infrastructure.

**Major.** Undesirable event leading to some fatalities and/or serious injury to individuals and/or significant loss or damage to critical equipment or infrastructure.

**Minor.** Undesirable event leading to minor injuries to individuals and minimal impact on equipment or infrastructure.

**Knowledge check**

|  |  |
| --- | --- |
| ALARP stands for ‘as low a risk possible’ | True  False |
| Risk is a combination of the probability of occurrence of harm and the severity of that harm. | True  False |
| The proximity and distances to people and Potential Explosion Sites is not a factor that influences the severity of the hazard at a potential explosive site | True  False |

Please rank in order the following activities (1 being most important and 5 being least important):

|  |  |
| --- | --- |
| **Activities** | **Ranking** |
| Determining the condition of the ammunition and likelihood for spontaneous ignition of propellant |  |
| Determining the number of buildings within Ground Shock range |  |
| Determining the UN Hazard Division of the ammunition |  |
| Estimating the financial values of stocks, costs to rebuild/repair storage infrastructure, and repair/rebuild civilian damaged building |  |
| Estimating the number of predicted casualties |  |

Which of the following is not a Tolerable Risk determined by the search for absolute safety contrasted against factors:

1. the inherent explosive safety hazards of storing, handling and processing ammunition;
2. duration of the mission;
3. available resources;
4. the conventions of the society where the ammunition is being stored; and
5. the financial costs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. | e. |

Please write a short answer to each of the following questions:

Describe how safety and tolerable risk relate to each other:

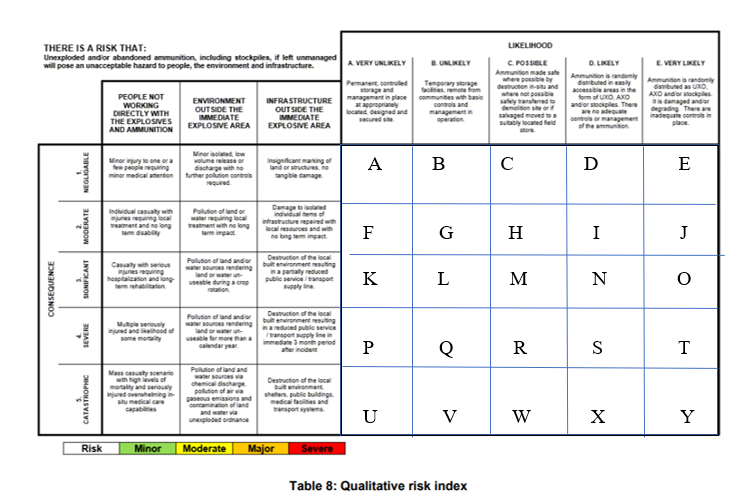
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Describe how, from your experience, the physical condition of the explosive storehouse influences the severity of the hazard at a potential explosive site:

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From the table above, indicate with an X below the scenario presenting a Major risk. Please refer to the IATG Qualitative Risk Index Table to indicate your choices.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| A. | B. | C. | D. | E. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| F. | G. | H. | I. | J. |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| K. | L. | M. | N. | O. |
| P. | Q. | R. | S. | T. |
|  |  |  |  |  |
| U. | V. | W. | X. | Y. |
|  |  |  |  |  |

Give an example of a major risk and explain why your example is categorised as major, using the IATG definition.

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Give an example of a catastrophic risk and explain why your example is categorised as catastrophic, using the IATG definition.

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In order to reduce the estimated risk from an unplanned or undesirable explosive event at an ammunition storage area, one or a combination of the following actions should be taken:

1. closure of the ammunition depot and the transfer of stocks to an ammunition depot with spare capacity
2. a reduction of ammunition stock levels within the explosive storage area until appropriate predicted blast over-pressure levels are reached at the exposed site
3. the probable impact of the estimated risk to the local community is formally accepted at the appropriate political level
4. an increase in the separation distance between the potential explosion site and the exposed site until tolerable blast over-pressure levels are reached at the exposed site
5. improvements in the physical infrastructure of ammunition storage to achieve tolerable estimated blast over-pressure levels at the exposed site
6. instigation of effective ammunition surveillance and proof systems to identify ammunition and propellant that has deteriorated to a dangerous condition
7. all of the above

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| a. | b. | c. | d. | e. | f. | g. |  |  |

Apply what you know

Describe, using examples from your own experience, how you have personally applied mitigations (or have seen them applied) to achieve an ALARP residual risk level:

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**2.2 Explosive Hazard Classification Code**

Learning Objective: Describe the application of the Hazard Classification Code Mixing Rules in ammunition management

Key Learning Points:

• Define the term Hazard Classification Code

• State UN Hazard Classification Code system

• State UN Hazard Classification Code compatibility groups

• Describe why Hazard Classification Code mixing rules exist

Estimated time: 120 mins

Reading: UNMAM pages 8 – 15 and IATG 01.50 - UN explosive hazard classification system and codes

Content

Define the term Hazard Classification Code

Hazard classification code (HCC) refers to an alpha-numeric symbol that denotes the complete HCC for a particular nature. The code consists of two or three digits indicating the hazard division followed by a letter corresponding to the compatibility group, e.g. 1.3G.

UN Hazard Classification Code system

• Indicates the type of hazard to be expected in the event of an accident.

• There are nine (9) classes, with number for Explosives being “1”.

• This is then subdivided depending on the type of hazard: 1.1, 1.2 etc.

UN Hazard Classification Code compatibility groups

Designed to minimise the risk of storing items together that will either increase the risk or the effects of an accident.

Articulated by Letters: A, B, C, D, E, F, G, H, J, K, L, N, S

Describe why Hazard Classification Code mixing rules exist

Ideally a higher degree of safety may be achieved by storing every ammunition type separately, but this is usually not practicable for reasons of storage capacity. Ammunition of different Compatibility Groups may be stored together in order to maximise the efficient use of available storage space as long as the mixing rules are applied.

**Knowledge check**

|  |  |
| --- | --- |
| Compatibility groups are designed to minimise the risk of storing items together that will either increase the risk or the effects of an accident | True  False |
| Compatibility groups are numbers like 1.1 | True  False |
| Compatibility groups are articulated by the letters: A, B, C, D, E, F, G, H, J, K, L, N, S | True  False |

Please write a short 1 sentence answer to each of the following questions:

Explain what Hazard Classification Code (HCC) 1.4S means:

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In your own words describe why compatibility groups are used:

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In your own words describe why the Hazard Classification Code exists:

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If an ammunition item contains a secondary detonating explosive, without a means of initiation, and has a propelling charge, what compatibility Group would it belong to:

1. C
2. D
3. E
4. F
5. L

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. | e. |

If ammunition burns violently and with intense heat, what Hazard Division would it belong to?

1. 1.4
2. 1.1
3. 1.6
4. 1.2
5. 1.3

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. | e. |
|  |  |  |  |  |

**Apply what you know**

Using your own experience describe when you have found it hard to fully apply the HCC system in your role as an ammunition manager and how you hope that this training on the UNMAM might help you in the future:

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**2.3 Calculating Explosive Risk**

Learning Objective: Describe the application of the NEQ calculations in ammunition management

Key Learning Points:

• Define NEQ calculations

• Describe the NEQ calculations to an ammunition stack

• Describe the NEQ calculations to an ammunition store

• Describe the NEQ calculations to ammunition during transport

Estimated time: 90 mins

**Content**

Define NEQ calculations

NEQ – Net Explosive Quantity.

The total explosive content present in a container, ammunition, building etc.

AUW – All Up Weight.

The AUW is the total weight of the munition, or munitions, including packaging and palletisation

Describe the NEQ calculations to an ammunition stack

The following process is used to calculate the NEQ of a stack of ammunition:

• Determine number of explosive articles in stack.

• Determine NEQ of each explosive article.

• Multiply the number of articles in the stack by the individual NEQ.

An example of using this process is:

• Stack of 100 Rounds 105mm HE (TNT)

• Each Round has 2.35kg HE

• 100 Rounds (2.35kg x 100) = 235kg HE

• NEQ for a stack of 100 Rounds 105mm HE is 235kg

Describe the NEQ calculations to an ammunition store

The following process is used to calculate the NEQ of a store of ammunition:

• Determine full list of explosive articles being stored

• Calculate the NEQ for each stack within the store

• Add up the stack NEQs to determine the overall store NEQ

An example of using this process is:

Items in store:

• 50 Boxes 105mm HE (TNT) (NEQ=235kg)

• 25 Boxes GREN FRAG (NEQ = 30kg)

• 50 Boxes 60mm Mortar HE (NEQ = 121.6kg)

Total NEQ for Store: 235 + 30 + 121.6 = 386.6kg

Describe the NEQ calculations to ammunition during transport

• Determine full list of explosive articles being transported in each truck or container

• Calculate the NEQ for each stack within the vehicle/container

• Add up the stack NEQs to determine the overall NEQ

Items in Vehicle A:

• 25 Boxes 84mm RCL HEAT (NEQ = 169.5kg)

• 20 Boxes 60mm Mortar HE (NEQ = 48.64kg)

Total NEQ: 169.5 + 48.64 = 218.14kg

**Knowledge check**

|  |  |
| --- | --- |
| NEQ provides a measurement for the complete weight of munition. | True  False |
| If the weight of each mortar in a box is 5 kg and there are 10 mortars per box, the NEQ of the box is 50kg. | True  False |
| If the total weight of all the munitions in a box, including packaging and palletisation, is 50kg then this is the AUW of the box. | True  False |

Please write a short 1 sentence answer to each of the following questions:

What does NEQ stand for?

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In your own words describe the process used to calculate the NEQ of a stack of ammunition:

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In your own words describe the process used to calculate the NEQ of a store of ammunition:

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Apply what you know

Ammunition Stack:

Stack of 125 Rounds 105mm HE (TNT)

Each Round has 2.35kg HE

Select the correct answer:

1. 300 kg
2. 294 kg
3. 300 kg
4. 246.75 kg

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. |  |

Show how you worked out the answer:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Ammunition Store:

Items in Store:

100 Rounds of 105mm HE (TNT) (NEQ = 235kg)

10 Boxes Grenade Fragmentation (NEQ = 30kg)

40 Boxes 60mm Mortar HE (NEQ = 121.6kg)

**Select the correct answer:**

1. 399 kg
2. 387 kg
3. 30 kg
4. 243651 kg

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. |  |

Show how you worked out the answer:

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Transit

Items in Vehicle A:

30 Boxes 84mm RCL HEAT (NEQ = 7kg per box)

25 Boxes 60mm Mortar HE (NEQ = 12kg per box)

**Select the correct answer:**

1. 19 kg
2. 510 kg
3. 1308 kg
4. 1308 kg

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. |  |

Show how you worked out the answer:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**2.4. Mitigating Explosive Risk**

Learning Objective: Describe Mitigating Explosive risk

Key Learning Points:

• Define Field Storage Area Components of temporary ammunition storage sites

• Define harm and hazard associated with ammunition management

• State the factors on which the severity of the explosive hazard is based

• Define risk mitigation versus risk reduction

• State the UN Explosive Risk Assessment process

• Categorise explosive risks

• Describe the process to reduce risk to a tolerable level

Estimated time: 120 mins

Reading: IATG 02.10 – Introduction to risk management principles and processes

**Content**

Define Storage Area Components of temporary ammunition storage site

“Ammunition shall be deemed to be under temporary storage conditions when appropriate and safe depot storage infrastructure is not available…

Or

“…when that infrastructure has decayed to such a condition that it provides no effective protection to either ammunition stocks or the local civilian community”

“In some circumstances temporary storage conditions may last for some time if resources are limited or unavailable to develop appropriate depot storage infrastructure.”

Define harm and hazard associated with ammunition management

• Harm: physical injury or damage to the health of people, or damage to property or the environment.

• Hazard: a potential source of harm.

State the factors on which the severity of the explosive hazard is based

• The quantity of ammunition being stored.

• The hazard classification.

• The physical and chemical stability of the ammunition.

• The physical condition of the PES.

• The proximity and distances to people and Exposed Sites.

Define risk mitigation versus risk reduction

Risk Mitigation: The measures taken to reduce the effects should an explosion or deflagration occur.

Risk Reduction: Actions taken to lessen the probability, negative consequences or both, associated with a particular risk.

State the UN Explosive Risk Assessment process

Risk management is a complex area for which there is a significant body of work to provide guidance. It would be impracticable to cover all the various options and techniques in IATG 02.10, and therefore only those risk management processes with a proven application in conventional ammunition stockpile management have been included.

Categorise explosive risks

Risks may fall into one or more of three categories:

1. Risks for which there may be some evidence, but where the connection between cause and injury to any one individual cannot be traced;

2. Risks for which statistics of identified casualties may be available; and

3. Risks for which best estimates of probability of events that have not yet happened are made by specialists.

Risks inherent in conventional ammunition stockpile management will be classified as falling under categories 2 and/or 3 above. Statistical evidence of previous explosive events within ammunition storage areas is available and established techniques to estimate risk based on empirical models or scientific equation exist.

Describe the process to reduce risk to a tolerable level

1. Identify the likely stakeholders in the conventional ammunition stockpile management process, (i.e. local civilian community, ammunition depot workers, management etc.).

2. Identify each hazard (including any hazardous situation and harmful event) arising in all stages of the stockpile management process.

3. Estimate and evaluate the risk to each identified user or group, (for example the consequences of an explosive event in terms of fatalities, injuries, property damage, environmental pollution and financial loss).

4. Judge if that risk is tolerable (e.g. by comparison with other risks to the user and with what is acceptable to society).

5. If the risk is not tolerable then reduce or mitigate the risk until it becomes tolerable.

**Knowledge check**

|  |  |
| --- | --- |
| Harm is a potential source of hazard | True  False |
| The physical condition of the PES is a factor that does affect the severity of the explosive hazard. | True  False |
| Ammunition can still be deemed to be under temporary storage conditions even when a permanent safe depot storage infrastructure is available but does not comply with IATG. | True  False |

Please write a short 1 sentence answer to each of the following questions:

List all the stakeholders that you think could be relevant to conventional ammunition stockpile management.

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Describe in your own words (giving a personal example if possible) why the proximity and distances to people and exposed sites is an important factor on which the severity of an explosive hazard is based.

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Which of the following should be included in a risk estimation and/or Explosive Safety Case (mark all that apply):

a) Explosion Consequence Analysis (ECA)

b) Summary of Non-Compliances

c) Summary of Hazard Mitigation Measures

d) Probability of Event

e). Acceptance of Risk

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| a. | b. | c. | d. | e. |

Apply what you know

Provide an example from your own experience of when you have had to reduce explosive risk to a tolerable level. Include specifics related to how it was determined that the residual risk was ALARP:

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**Project**

**Learning Objective: Prepare an individual presentation to be delivered on the first day of the in-person course.**

Estimated time: 7 hours to prepare presentation

On day 1 of the in-person course you will have to give a 10-minute presentation, then there will be an additional 5 minutes for you to answer questions about your presentation.

The presentation can be delivered in a style of your choosing e.g., using MS PowerPoint, a projector to show images, a white board or just verbally.

Please select a specific topic from the following list:

1. Describe examples of poor practice and good practice that you have observed and provide suggestions as to how good practice can be implemented more widely.

2. Explain the advantage of good ammunition management practices in relation to UN Peace operations.

3. Explain why mixing incompatible ammunition natures (Compatibility Mixing Rules) in storage or during transport can be deadly!

4. How do T/PCC Nations determine the right amount of ammunition needed for a UN Mission?

5. How can failing to implement a suitable Ammunition Inspection program lead to ammunition incidents and accidents?

6. Is weapon storage as critical to the safety of T/PCC personnel as ammunition storage? Explain your answer

7. What is the importance of the different quantity distances (Yellow, purple and green lines)?

8. Describe your personal experience of ammuntion management in your home country. How do your national standards compare to the IATG?

**Glossary of Terms and Definitions**

**Access Control.** A system which enables an authority to control access to areas and resources in a given physical facility.

**Accident.** An undesired event which results in harm.

**Accounting.** Information management systems and associated operating procedures that are designed to record, numerically monitor, verify, issue and receive ammunition in organizations and stockpiles.

**Ammunition.** A complete device, (e.g.: missile, shell, mine, demolition, store, etc.) charged with explosives, propellants, pyrotechnics, initiating composition or nuclear, biological or chemical material for use in connection with offence, or defense, or training, or non-operational purposes, including those parts of weapons systems containing explosives.

**Ammunition Accident.** Any incident involving ammunition or explosives that results in, or has potential to result in, death or injury to a person(s) and/or damage to equipment and/or property, military or civilian.

**Ammunition Container.** An approved box, cylinder, metal liner or receptacle that is designed to contain explosive articles or explosives substances. It normally forms part of an ammunition container assembly.

**Ammunition Store (unit).** An authorized building containing ammunition under unit control.

**Barricade.** A natural ground feature, artificial mound, barrier or wall which, for storage purposes, can prevent direct communication of explosion from one quantity of explosives to another, although it may be destroyed in the process.

**Combat Load/Basic Load.** The quantity of ammunition required to be on hand within, and which can be moved by, a unit or formation. It is expressed according to the wartime organization of the unit or formation and maintained at prescribed levels.

**Compatibility.** Absence of reactions between explosives and other components within a type of ammunition that could lead to unacceptable changes in physical properties, or sensitivity of explosives in the ammunition.

**Compatibility Group (CG).** Grouping identified by a letter which, when referenced to a compatibility table, shows those explosives which may be stored or transported together without significantly increasing the probability of an accident or, for a given quantity, the magnitude of the effects of such an accident. Codes are used to indicate which explosives and compounds may be safely stored together.

**Crew-Served Weapon.** A weapon operated by more than one designated soldier.

**Destruction.** The process of final conversion of weapons, ammunition and explosives into an inert state so that the item can no longer function as designed.

**Destruction (in situ).** The destruction of any item of explosive ordnance by explosives without moving the item from where it was found - normally by detonating an explosive charge placed alongside.

**Evaluation.** The analysis of a result or a series of results to establish the quantitative and qualitative effectiveness and worth of software, a component, equipment or system within the environment in which it will operate.

**Explosion.** Sudden release of energy producing a blast effect with the possible projection of fragments. The term explosion encompasses fast combustion, deflagration and detonation.

**Explosive.** Solid or liquid substance or mixture of substances which, by intrinsic chemical reaction can produce an explosion. A substance or mixture of substances, which, under external influences, is capable of rapidly releasing energy in the form of gas and heat.

**Explosive Ordnance Disposal (EOD).** The detection, identification, evaluation, rendering safe, recovery and final disposal of unexploded explosive ordnance. EOD may also include the rendering safe and/or disposal of explosive ordnance which has become hazardous by damage or deterioration, when the disposal of such explosive ordnance is beyond the capabilities of those personnel normally assigned the responsibility for routine disposal. The level of EOD response is dictated by the condition of the ammunition, its level of deterioration and the risk to the local community.

**Explosives Storehouse.** A building designed and erected for the sole purpose of storing explosives, or a building modified, adopted or appropriated for that purpose and approved by a competent authority.

**Exposed Site (ES).** A magazine, cell, stack, truck or trailer loaded with ammunition, explosives workshop, inhabited building, assembly place or public traffic route which is exposed to the effects of an explosion (or fire) at the potential explosion site under consideration.

**Hazard.** Potential source of harm.

**Hazard Class.** The United Nations system of nine classes for identifying dangerous goods. Class 1 identifies explosives.

**Heavy Machine Gun.** A crew served machine gun that fires a cartridge larger than standard rifle cartridge (above 7.62mm/.30inch caliber).

**High Explosive (HE).** Substance or mixture of substances that can undergo a fast-internal decomposition reaction leading to a detonation in its normal use. A substance or mixture of substances which, includes primer, booster or main charge in the ammunition.

**Illumination Ammunition.** Ammunition designed to produce a single source of intense light for illuminating an area. The term includes illumination cartridges, grenades and projectiles, as well as illuminating and target identification bombs.

**Improvised Explosive Device (IED).** A device placed or fabricated in an improvised manner incorporating explosive material, destructive, lethal, noxious, incendiary, pyrotechnic materials or chemicals designed to destroy, disfigure, distract or harass. They may incorporate military stores but are normally devised from non-military components.

**Incendiary Ammunition.** Ammunition, containing an incendiary substance which may be a solid, liquid or gel, including white phosphorus.

**Inhabited Building.** A building or structure occupied in whole or in part by people (usually civilian). Used synonymously with occupied building.

**Inhabited Building Distance (IBD).** The minimum permissible distance between potential explosive sites (PES) and non-associated exposed sites (ES) that requires a high degree of protection from an explosion.

**Level of Supply.** The quantity of supplies or materiel authorized or directed to be held in anticipation of future demands.

**Light & Medium Machine Gun.** A machine gun which fires a full-sized rifle cartridge. LMGs are normally fitted with a bipod to support the weapon during firing and may be operated by either one soldier or a crew. Medium Machine Gun (MMG) similar to LMG, but usually mounted on tripod and operated only as a crew-served weapon. Able to withstand extended periods of fully automatic firing.

**Magazine.** Any building, structure, or container approved for the storage of explosive materials. (See also explosive storehouse (ESH).

**Net Explosive Quantity (NEQ).** The total explosive content present in a container, ammunition, building, etc., unless it has been determined that the effective quantity is significantly different from the actual quantity. It does not include such substances as white phosphorous, smoke or incendiary compositions unless these substances contribute significantly to the dominant hazard of the hazard division concerned.

**Operating Level of Supply.** The quantities of supplies and materiel required to sustain operations in the interval between replenishment and the arrival of shipments. It is based on a TCC/PCC's established replenishment period.

**Potential Explosion Site (PES).** The location of a quantity of explosives that will create a blast, fragment, thermal or debris hazard in the event of an explosion of its content.

**Propellant.** Deflagrating (burning rapidly emitting intense heat and sparks) explosive used for propulsion. A substance that is used to move an object by applying a motive force. This may or may not involve some form of chemical reaction. It may be a gas, liquid, or, before the chemical reaction, a solid. Chemical propellants are most usually used to project ammunition warheads. A substance on its own or in a mixture with other substances that can be used for the chemical generation of gases at the controlled rates required for propulsive purposes.

**Pyrotechnic.** A device or material that can be ignited to produce light, smoke or noise.

**Risk.** Combination of the probability of occurrence of harm and the severity of that harm.

**Safeguarding.** A consultative procedure with the appropriate local authority whereby safeguarded areas outside boundary fences are established for each explosive establishment.

**Safety.** The reduction of risk to a tolerable level. Degree of freedom from unacceptable risk.

**Safety Level of Supply (Ammunition).** The quantity of ammunition, in addition to the operating level of supply, required to be on hand to permit continuous operations in the event of minor interruption of normal replenishment or unpredictable fluctuations in demand.

**Security.** The result of measures taken to prevent entry by unauthorized persons into explosive storage areas, theft of explosive ordnance and acts of malfeasance, such as sabotage.

**Shelf Life / Service Life.** Time period for which an explosive or device can be stored or maintained under specific conditions before use or disposal without becoming unsafe or failing to meet specified performance criteria. The length of time an item of ammunition may be stored before the performance of that ammunition may degrade.

**Small Arms.** Any single-man-portable lethal weapon designed for individual use that expels or launches, is designed to expel or launch, or may be readily converted to expel or launch a shot, bullet or projectile by the action of an explosive. Includes, amongst other things, revolvers and self-loading pistols, rifles and carbines, submachine guns, assault rifles and light machine guns, as well as their parts, components and ammunition. Excludes antique small arms and their replicas.

**Standard.** A standard is a documented agreement containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics to ensure that materials, products, processes and services are fit for their purpose.

**Standard Operating Procedure (SOP).** Instruction that defines the required or currently established method of conducting an operational task or activity.

**Surveillance.** A systematic method of evaluating the properties, characteristics and performance capabilities of ammunition throughout its life cycle in order to assess the reliability, safety and operational effectiveness of stocks and to provide data in support of life reassessment. The constant review of accumulating test results to ensure that the overall quality remains acceptable. The term is also applied to the continuing examination of the stores themselves.

**Weapon.** Anything used, designed or intended for use in causing death or injury or for the purposes of threatening or intimidating any person.

**Scenario for the Weapons and Ammunition Management in UN Peace Operations Course**

This scenario will be used throughout the in-person course. Participants should familiarize themselves with the content.

**Country History**

Carana gained its independence in 1962. Joseph Uroma (the leader of the largest of the liberation movements and with a power base derived from the backing of the Falin majority in the east of the country) came to power after independence. He consolidated his rule by suppressing all other political parties. Initially popular, his government became increasingly alienated from its people due to the deteriorating economic situation, corruption and inefficiency. He was overthrown in a military coup in 1971. The military government re- established a free-market economy but was unable to solve Carana’s mounting economic problems. There was a further military coup in 1975, which established a degree of stability until an economic crisis in 1983 seriously weakened its authority.

Free elections were conducted in 1986, under international pressure, which were won by the Parti Democratique de Carana (PDC). Its leader, Jackson Ogavo, became the country’s first elected President. Initially the government was reasonably representative of the ethnic balance of the country, although still dominated by the Falin, and it followed democratic principles that were later enshrined in the 1991 constitution. Some economic and social reforms were realized but Ogavo became increasingly preoccupied with suppressing opposition groups and replaced all key Kori and Tatsi government ministers with members of Ogavo’s Falin tribe. Repression corruption and economic inefficiency have mounted. Since 1998, the economy has been in decline and humanitarian crises occur on a regular basis.

**Civil War**

**Caranian Civil War.** In 2011 a rebellion by the Movement Patriotique de Carana (MPC) began in Tereni province to the west of the country as part of the global ‘Arab Spring’. The MPC achieved some local success in the west over the Carana Defense Force (CDF), and, by 2016, it effectively controlled the western highlands. Although the MPC is multi- ethnic and describes its goal as the restoration of democracy throughout Carana, it draws much of its support from Koris who are the dominant ethnic group in the west. With the bulk of the CDF tied down in the west, Tatsis in the southern province of Leppko began to agitate and attack government institutions. Initially this amounted to little more than a few localized incidents, but it quickly escalated into general looting and attacks on Falin civilians who are the predominant ethnic group to the east of the country. A number of these small rebel groups united and called themselves the Indépendants Combattants du Sud Carana (ICSC). The government responded by covertly arming ‘self-defense militias’ amongst the Falin community who have retaliated with attacks on Tatsis.

On 19 May 2017, after years of violent conflict in Carana a ceasefire agreement (Kalari Peace Treaty) was signed between the country’s government and rebel forces. The agreement foresees that a United Nations mandated mission would assist in overseeing and verifying the ceasefire and in the stabilization of the country with a priority to protect civilians. The UN Security Council in Resolution 1544 of January 2018 authorizes the establishment of the United Nations Assistance in Carana (UNAC) under Chapter VII of the UN Charter.

**Geography**

Location: Island off East Africa, bordering the Indian Ocean

Area:

Total—121,327 sq km

Land—111,621 sq km

Water—9,706 sq km

Country Comparison to the World—97

Area—Comparative: Slightly larger than Virginia; slightly smaller than Mississippi

Coastline: 300 km

Land Boundaries:

* Total—1,511 km
* Border Countries—Sumora (443 km), Katasi (851 km), and Rimosa (217 km)

Terrain: There are two major areas; the plains in the eastern and central parts of the

country and the highlands in the West and Southwest areas. The three main rivers in

Carana are the Kalesi, Mogave and Torongo.

Elevation Extremes:

* Lowest Point—Kalesi Delta, 0 m
* Highest Point—Mount Oladi, 3,489 m

**Climate**

Semi-tropical; hot and humid in the central and eastern plains, particularly in the three major river basins and Kalesi delta region; cooler and drier in the western highlands; and cooler and wetter in the southwestern highlands. The wet season is April-October, and the dry season is December-February.

**Natural Resources**

Minerals: Diamonds are found along the Kalesi River in the provinces of Mahbek and Barin. Copper is mined around Corma. Coal is mined in the province of Hanno.

Timber: The jungle-covered mountains of the west contain rare wood and timber.

Land Use:

* Agricultural Land—22.4%
* Forest—47.3%
* Other—30.3%
* Irrigated Land—10,599 sq km

Note: The unequal distribution of resources is a source of tension and a driver of violent conflict.

Total Renewable Water Resources: 681 cu km (2012)

**Environmental Issues and Effects**

Natural Hazards; Seasonal flooding along the Kalesi River basin; periodic, but increasingly frequent droughts in the south. Human Geography: Human development in Carana has been shaped by differences in climate zones, creating a divided society featuring disparate social structures organized around different modes of subsistence. The most salient cleavage is between the seminomadic pastoralists inhabiting the pasturelands in the southwest, and the largely sedentary farmers and miners in the east.

Resource scarcity has exacerbated the historical tensions between the two communities centered on the annual eastward migration of pastoralists during the dry season. Intensive cultivation with inadequate crop rotation has depleted the formerly fertile soil of the eastern alluvial plains. Furthermore, climate change has increased the frequency and severity of droughts and accelerated the disappearance of the southwest grasslands. The sharp decline in both agricultural production and habitable real estate has turned cyclical interaction into near-perpetual competition in which the survival of one or both communities is at stake. This dynamic is a significant structural driver of violent conflict in Carana.

**International Agreements**

* Party to—Rome Statute, Biodiversity, Climate Change, Climate Change-Kyoto Protocol, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Marine Dumping, Ozone Layer Protection, Tropical Timber 83, Tropical Timber 94, Wetlands
* Signed, but not ratified—Environmental Modification

**People and Society**

**Nationality**

Noun: Caranian

Adjective: Caranian, Carani

**Ethnic Groups, Languages, and Religions**

Carana consists of three main groups: the Falin, Kori and Tatsi. The Falin (49 percent) are the ethnic majority in the country and mainly live in the east and center of Carana, although some are also present in the west and south. The Kori (38 percent) mainly live in the west and are the dominant ethnic group in the provinces of Tereni and Koloni. The Tatsi (17 percent) mainly live in the south and southwest. However, all three groups are intermingled in several areas and this has sometimes led to violent interethnic clashes. Many Tatsi are semi-nomadic pastoralists, and their annual migration, with their herds, is an increasing source of tension with the Falin in the provinces of Mahbek and Barin. The official language is French but more than 20 local dialects are spoken.

**Population and Age Structure**

Total: 14 million

* 0-14 years—42.65%
* 15-24 years—21.41%
* 25-54 years—29.75%
* 55-64 years—3.56%
* 65 years and over—2.63%

Country comparison to the world: 61st

Median Age: 18.1 years

* Male—17.9 years
* Female—18.4 years

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| --- | --- |
| **Population Growth Rate:** | 3.6% |
| **Total Fertility Rate:** | 5.1 children born/woman |
| **Birth Rate:** | 34.88 births/1,000 population |
| **Death Rate:** | 10.07 deaths/1,000 population |
| **Maternal Mortality Rate:** | 706 deaths/1,000 live births |
| **Infant Mortality Rate:** | 79.47 deaths/1,000 live births |

Life Expectancy at Birth: 45.3 years

* Male—42.1 years
* Female—47.9 years
* Urban Population: 33.3%

**Health and Education**

Improved Drinking Water Source:

* Urban—62.3%
* Rural—16.1%
* Total Population—20.77%

Unimproved Drinking Water Source:

* Urban—37.7%
* Rural—839%
* Total Population—79.23%

|  |  |
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| **Overall Infectious Disease Risk:** | Very High |
| **Food or Waterborne Diseases**: | Bacterial and protozoal diarrhea, hepatitis A, and typhoid fever, Cholera |
| **Vector borne Diseases:** | Malaria, dengue fever, onchocerciasis (river blindness), andtrypanosomiasis (sleeping sickness) |
| **Water Contact Diseases**: | Schistosomiasis |
| **Animal Contact Diseases:** | Rabies |
| **HIV/AIDS Adult Prevalence:** | 3.3% |
| **People Living With HIV/AIDS:** | 406,000 |
| **Adult Obesity Prevalence:** | 3.1% |
| **Children Under Age of 5 Years Underweight:** | 27.4% |
| **Literacy (age 15 and over read/write):** | 63.8% (Male—78.1% & Female—50%) |
| **Child Labor (ages 5-14):** | 42% |

**Security Overview**

The level of general security in Carana is very low as a result of the intense fighting between government and rebel forces, the poor economic situation, the sectarian tensions, the high number of displaced people, the low police presence outside of the capital and the widespread dissatisfaction with the government.

Civil unrest is widespread and occurs on a regular basis. The level of crime is high and there is evidence that much of it, especially in the sectors of diamonds and narcotics, is both organized and transnational. Overall, the security situation in Carana must be assessed as “Medium Risk”. Some areas, such as the territory around Galasi, as well as Hanno and Leppko Provinces, have to be assessed as “High to Very High Risk”. Male abductees of all ages are often coerced into the fighting forces and girls and women are used as what amounts as slaves, including being forced to become “wives” of combatants. These women are also at times forced to participate in outright fighting. If they refuse, they are killed. Rape and other forms of sexual abuse are commonplace and are used to intimidate.

In Galasi the primary risk is the high level of crime in the suburbs and IDP camps around the capital. In the suburbs of Galasi gangs of male youth, of up to 100 in number, rule the streets. These gangs pose a threat even to unwary military formations. There is increasing evidence that their activities are organized and are funded by trafficking in narcotics and women. Within the IDP camps all over the country there is a high level of crime, mostly as a result of poverty and hopelessness, but this has been on the decline recently since the appearance of vigilante groups who dispense their own form of summary justice.

In Akkabar the coal mine workers went on strike in May 2017 as they had not been paid for four months. These men live in shantytowns in poor conditions, separated from their families. What started as an industrial dispute soon escalated into open conflict after excess use of force by the police resulting in the death of several miners. In reaction, some miners have subsequently attacked a number of government institutions, particularly police stations and banks. Much of this may well be inspired by the criminal cartels. Activity is sporadic and often spontaneous, but it has increasing local support.

**Leppko.** The breakdown of government authority in Leppko province has resulted in an increase in the number of uncontrolled armed groups, that together with ICSC combatants, have preyed on the Kori and Caran elements of the local population. Much of this violence is radicalized and sectarian in nature. Many of these groups are former Elassi rebels from neighbouring Rimosa who have taken advantage of the unstable situation in Carana. Links between the ICSC and these groups are denied by the ICSC but several independent reports indicate such links exist. These groups are involved in the organised smuggling of weapons, drugs and women. It is hoped that the presence of UNAC will bring a needed degree of stability to the mountainous border areas.

**Social Issues / Risk to Civilians**

Carana has high mortality rates in childbirth and low literacy rates for women. Many households are headed by women as before the war many men left to work in the coal and copper mines. The separation of families for long periods of time has contributed to an HIV epidemic affecting large parts of the populations. Many men have been killed in the conflict, or forcibly recruited by the various combatant groups, leaving women to raise families on their own. This leaves many women vulnerable to threats but has also resulted in an increased political awareness among women. Crime is high and many young men have joined criminal gangs, which fight for control of territory. Gang-related violence has reached shocking levels in the major cities. Some of the gang violence takes place on an inter-ethnic basis, particularly around the IDP camps in Galasi where Koris, Falins and Tatsis have fled to escape the fighting in the south and west.

The Koris and Tatsis also face considerable hostility from the settled population of Galasi and other eastern towns, which are predominantly Falin, and who blame them for undercutting wages and contributing to the high levels of unemployment. Civilians are vulnerable to threats from extreme violence including death. Up to recently civilians were killed due to their ethnic origin or to as collateral damage during intense fighting. They were also killed in retaliation attacks if one of the opposing sides in the war suffered casualties.

The water and sanitation in the IDP camps and shantytowns – where many men live – are poor, alcoholism and drug addiction rates are high as is the level of HIV infection. Bigamy is still common in rural areas. Female genital mutilation (FGM) of girls in their early teens, though illegal, is practiced very extensively in the western part of the country by the Kori. Abuse of both boys and girls has been high throughout the conflict. Young boys are often abducted to be child soldiers. When in the military groups, the boys are often abused, and the use of drugs is common. Girls are also abducted by military groups to serve as sex slaves, ‘wives’ of male combatants and for working in the military organization for example in transport, healthcare and smuggling. The ICSC are the main culprits of abductions but also sections of the CDF have been reported to be responsible. There are numerous reports of child prostitution and trafficking involving both girls and boys. Rape rates of young girls in the cities are also high. Many girls have been forced to quit school of fear from sexual violence worsened by the social stigma attached to this form of violence.

Crime in IDP camps is currently classed as high and there are reports of armed factions within the camps running an organized crime scheme involving abducting and selling children across the border with Rimosa. Human rights situation in Carana is of grave concern. The police and the army (CDF) are responsible for both opportunistic human rights violations, politically and ethnically motivated violence, in a climate of total impunity. The presidential guard is an additional threat to the population. ICSC has been responsible for forced recruitment including of children. Impunity is rampant due to lack of judiciary capacity and political/military interference with judicial processes.

Hospitals and schools have been attacked in the past. One school was attacked in 2018 and the students were abducted. They were never recovered but there are reports that they were sold to an armed group operating in Rimosa who availed of a large port to the south of the country to ship the students abroad.

Finally, the country of Rimosa, sharing a border of approximately 200 km with Carana, has suffered from civil conflict between the two rival ethnic groups, the majority Tatsi and the minority Elassi. As a result, approximately 30,000 Elassi have taken refuge in southern Carana. Most of these Elassi refugees are sheltered in Camp Lora, near the village of Lora approximately 50 km from the Rimosan border and are a source of potential instability within the Tatsi dominated Leppko Province. Camp Lora is maintained by UNHCR and two NGO implementing partners, Refugees International and Care for the Children.

**Politics and Government**

**Political System**

|  |  |
| --- | --- |
| **Official Government Name:** | Government of the Republic Carana |
| **Government Type:** | Semi-presidential constitutional republic (nominally democratic) |
| **Capital:** | Galasi |
| **Administrative Divisions:** | One special municipality (Galasi) and eight provinces; Fellari,  Guthar, Leppko, Hanno, Barin, Koloni, Mahbek, and Tereni. |
| **Constitution:** | Several previous; latest adopted in 1991 after approval through  referendum. |
| **Legal System:** | Civil law system primarily based on colonial law, but also customary, and  tribal law. |
| **Suffrage:** | 18 years of age; universal and compulsory. |
| **Head of State:** | President Jackson Ogavo |
| **Head of Government:** | Prime Minister Lee Zareh |
| **Legislative Branch** | 256-seat unicameral parliament |
| **Elections:** | Every five years. Members of parliament are elected by district. Unlike many  other systems, the entire legislature is up for reelection every cycle. |

**Governance, Corruption, and Human Rights**

The Constitution of the Republic of Carana was adopted by public referendum in 1991. The President is popularly elected for five-year terms. The Prime Minister is appointed by the President but must be approved by a parliament majority. The Parliament consists of 256 elected members and was intended to be representative of the ethnic balance of the country. According to the Constitution, the power to formulate foreign and defense policy resides in the Presidency. The power to formulate economic and domestic policy is vested in the legislature. Although the constitution supports a democratic political system President Ogavo has gradually suppressed any effective opposition and since 2000 Carana has effectively been a one-party state. The PDC is the only legal political party.

The Constitution also provides for a Supreme Court, provincial courts and district courts. The President appoints all judges to the Supreme Court. Provincial governors appoint judges to the provincial and district courts. Government control over these courts varies, depending on the region. Although the courts are constitutionally independent of the executive, they have been politicized during the long period on single party rule. They also lack institutional capacity and resources. Salaries of judicial staff often are unpaid for months, leading to absenteeism and corruption. Legislation remains outdated and often discriminatory against women and other vulnerable groups. There is no functioning juvenile justice system, and no public defense counsel service.

The Constitution permits the declaration of a state of emergency and the government has used this provision to create a system of mixed civilian/military courts, with very limited rights of appeal, to try all treason, terrorist and similar cases. These regularly impose the death penalty for serious crime.

Carana has ratified the main international human rights treaties and the Rome statute of the International Criminal Court; however, its statute book contains many laws inherited from colonial period, which are incompatible with these standards. Alongside the formal administrative structures, there exists a traditional system built around chiefdoms, which exercise considerable de-facto authority, particularly in rural areas, and preside over traditional courts applying unwritten customary legal codes.

**Relations with Neighboring Countries**

Carana’s external boundaries result from the colonial time and do not represent the ethnic distribution in the region. The Falin make up 10 percent of the population of Sumora, the Kori make up 38 percent of the population of Katasi and the Tatsi make 45 percent of the population of Rimosa. Many Tatsi favor secession of Leppko from Carana and the creation of a ‘Greater Elassonia’, which would be created out of southern Carana and northern Rimosa.

The relations between Carana and Sumora are traditionally good. Even though the Falin make up only 10 percent of the population of Sumora they are strong politically. In the recent past, the government of Sumora has tended to support the position of President Ogavo. The relations between Carana and Katasi are strained. Carana has accused Katasi of supporting the MPC and these allegations have been corroborated by reports from a number of international organizations. Rimosa has been in the grips of a civil war between two rival ethnic groups; the dominant majority Pleionians and the minority Elassonians. Most of the interethnic fighting in Rimosa has taken place in northern Rimosa, near the border of Carana, where a rebel army calling itself the Elassasonian Liberation Front (ELF) has waged a guerrilla-style campaign against government forces and pro-government Pleionian militias. The ELF is said to have links with the ICSC in Carana.

**Economy Overview**

The conflict has greatly exacerbated Carana’s economic problems. The production of copper halted and income from diamonds was hijacked by a number of groups. Fighting in rural areas hit both agricultural production and Carana’s timber industry. The net result has been an inflation rate of around 300 percent and a significantly reduced supply of all commodities. Although the government controls the mining sector and all foreign trade activity, it is extremely dependent on international aid to finance basic expenditure. Increasing dissatisfaction with its failure to provide basic services is particularly acute in the major towns and often threatens to erupt into violence.

|  |  |
| --- | --- |
| Gross National Income (GNI), Atlas method (current USD): | $28,729,989,561 |
| GNI, PPP (current USD): | $48,813,239,111 |
| GNI per capita, PPP (current USD): | $650 |
| Country Comparison to the World: | 223rd |
| GDP Composition by Sector of Origin: | Agriculture—39.9%  Industry/Mining—44.7%  Other—15.4% |
| Agricultural Commodities: | manioc, corn, tubers, sorghum, rice, sugarcane, and peanuts |
| Industrial Commodities: | Timber, copper, coal, and diamonds |
| Currency: | Caranian Dollars |
| Inflation Rate: | 300% |

**Infrastructure**

**Transportation**:

Roadways: 153,497 km

* Paved—2,794 km
* Unpaved—150,703 km
* Comparison in the World—53rd

Note: Carana had a well-developed road network, capable of supporting commercial traffic, with practically all major towns connected. However, the years of civil war, and minimal maintenance have degraded it significantly, which makes travel very difficult during the rainy season in particular.

**Railways:** Carana has two main rail lines with a combined length of 280 km. One track originally connected Galasi with the coal mining area east of Sureen, but trains cannot travel further west than Maroni, due to unrepaired damage to the main railway bridge sustained during the 2004 floods. The second track runs between Maldosa and Mia.

**Navigable Waterways:** 5,342 km

**Seaports** and Terminals: Carana has three deep-water seaports with varying capacities and a number of smaller fishing ports. The port at Galasi is the best equipped, followed by the ports in Cereni and Maldosa.

**Airports:** Carana has two international airports in Galesi and Corma.

Additionally, there are 25 airfields around the country, not all of which have paved runways. The airports in Alur and Folsa are suitable for medium transport aircraft. All other airfields are only suitable for light fixed wing aircraft.

**Energy**

The two hydroelectric dams along the Kalesi and Mogave have fallen into disrepair over the course of the Carana conflict. Only the Mogave dam continues to produce electricity. In addition to the neglected maintenance, the capacity of both reservoirs is greatly reduced due to years of sedimentation. There are three power plants, in Carana, the Kilu Dam, the Salobo Dam and a coal power plant in Galasi. Most of the power supply equipment around the Salobo Dam was destroyed during the conflict. Rural areas have no access to the grid, but some small local waterpower plants and generators provide power. The majority of the country is currently without regular supply. Only the capital and some larger cities have a water supply system for the central area of the city. All other towns and villages rely on wells and water trading. Areas near the major rivers have ample water supply but it still needs purification. There is no system of sanitation and garbage removal in the urban areas. There is no telecommunications system outside Carana’s capital. Cellular coverage is, however, expanding and generally covers the main towns and routes throughout the country. Government institutions and major companies also use satellite communications.

**Military and Security State Security Forces**

Carana Defense Force (CDF): The CDF has a total strength of approximately 10,000 men (9,000 Army, 800 Air Force, 200 Navy). The chiefs of the service report direct to the president. The navy has a small number of coastal and river patrol boats. The air force, equipped with a squadron of armed helicopters, transport helicopters and a few light bombers has a limited strike capacity. The main military force in the CDF is the army. Structured in four regional commands – North, East, South, and West – the CDF generally represent the central government’s authority throughout the country. The military regions do not necessarily match the administrative and provincial boundaries but reflect the location of the headquarters and troops rather than the real responsibility for a defined area. The army is equipped with light tanks, reconnaissance vehicles, armored personnel carriers, artillery and mortars, missile launchers and anti-aircraft guns. Some of this equipment is very old and much is in considerable need of repair. The air force is effectively grounded due to lack of spare parts.

**Presidential Guard**

The Presidential Guard has the equivalent strength of two infantry battalions, and it is not part of the regular defense force. The commanders and most officers are Falin, and they are recruited personally by President Ogavo. Its members have received intensive training and are entitled to several privileges. This unit is a loyal elite force with the task to protect the President, but has also been used, together with Gendarmerie units, to fight against rebel groups. It has a reputation for brutality.

**Carana National Police (CNP)**

The CNP are located in population centers and are controlled by the provincial administration. Officially, the CNP has 8,500 officers, but many of these positions may be vacant. The police suffer a critical shortage of qualified personnel, logistical and financial resources, and training and their presence throughout Carana is very low. Customs and immigration officials are also considered to be part of the CNP. The Gendarmerie is part of the Ministry of Interior and maintains the police presence in rural areas and is responsible for border security. However, in recent years the Gendarmerie was used more often to suppress opposition political groups than for rural security or border control. In addition, CDF units often exercise police tasks, representing government power in the internal security role. Crime rates particularly in population centers are high and there are numerous reports of abuses perpetrated by the law enforcement agencies. Evidence of organized criminal activities, especially drug and human trafficking has come to light, in some cases involving collusion or active participation by law enforcement officials.

**Rebel Groups**

**Movement Patriotique de Carana (MPC):** The MPC has a total strength of around 10,000 fighters. The MPC is structured into groups of 700 men, each led by a field commander and has a local network of supporters. The groups have no internally defined military structure, but a system of sub-commanders with different numbers of fighters. Loyalty to commanders is high and discipline is very good. The official HQ of MPC is in Alur but this is mainly symbolic HQ rather than operational. In some areas the MPC have taken over government and basic administrative functions. As a result of the broad public support for the rebels, and the dissatisfaction with the government, the new role of the MPC is well accepted by the population in the west.

**Combattants Indépendants du Sud Carana (ICSC):** The ICSC is an unstructured formation of rebels of diverging backgrounds, whose total strength is estimated to be around 2,000 fighters. It has a weak command and control structure and discipline and internal cohesion is low, as is the standard of training. Some members are deserters from the CDF, while others are from the civil war in Rimosa. The movement has been successful in recruiting young men from the local population, due to its military successes and reaction against the brutality of the government’s counter-insurgency campaign, which indiscriminately targeted Tatsis in the Southern region. The CISC also regularly abducts civilians to bolster its ranks. Male abductees of all ages are often coerced into the fighting forces and girls and women are used as porters, cooks, medics and are oftentimes forced to become ‘wives’ of combatants. These women are also at times forced to participate in fighting and are killed if they refuse. It has been reported that they have recently started to sell abductees as a source of income.

**Arms, Munitions, and Landmines:** All parties to the conflict used landmines intensively and there are no reliable records as to their location. Consequently, mines pose a major and unpredictable threat to the population at large, aid agencies and any potential peacekeeping mission. In addition to mines, Carana is awash in unexploded ordnance (UXO) and potential nitrate-based explosive precursors, which can be used to construct and employ a variety of improvised devices and/or weapons. Finally, the concentration of small arms and ammunition in Carana is among the highest in the World, both in absolute and per capita terms. Stocks and flows of small arms in and through Carana have increased dramatically due to mutual reinforcement between the civil war and Carana’s continuing role as a major hub in the regional illicit arms trade.

**Refugees and Internally Displaced Persons (IDPs)**

An estimated half a million people have fled the country, taking refuge in the neighboring countries of Sumora (approximately 200,000 refugees), Katasi (approximately 200,000 refugees) and Rimosa (approximately 100,000 refugees). Another half a million are internally displaced persons (IDPs) within Carana. The vast majority of those are located in the south of the country due to the route that they take to avoid the fighting and high levels of criminality in the ICSC area north of the border with Rimosa.

**UNAC Structure**

**Military, Police and Personnel Planning Assumptions**

Availability of the troops is not a major issue. While there may be political pressures to keep numbers down, the force must have the capability to do what is asked of it – overall force level is 10,000; this figure is based on:

* Probable tasks which include observation and monitoring of a ceasefire, protection of civilians, liaison with the parties, support to a disarmament programme, security of key locations, support to humanitarian assistance, support to efforts to promote human rights, protection of UN personnel and facilities.
* Size of Carana and areas of potential deployment to be capable of achieving the probable tasks.
* Poor condition of main supply routes which reduces mobility.
* Longer term support to the elections which will need to be established as early as possible.

Force requirements do not make provision for:

* Active participation in training as part of a security sector reform programme. It is assumed that any involvement would be advisory or liaison.
* Border security,
* Any form of arms embargo

There is to be a single integrated mission headquarters; this is based in Galasi. It is made up of:

* Headed by an SRSG,
* Two deputy SRSGs,
* DMS,
* Force Commander and
* Police Commissioner,
* Consists of 150 civilian international staff,
* 200 local staff,
* 95 military staff officers,
* A military HQ company of 120,
* A military police detachment of 45,
* A Civilian Police Command element of 45.

It includes:

* An Integrated Mission Planning Team (IMPT)
* Joint Operations Centre (JOC)
* A Joint Mission Analysis Cell (JMAC)

There is a single military chain of command with UN Military Observers (UNMO). UNMO team leaders reporting directly to Sector Commanders through the sector Chief Operations Officer in each Sector HQ.

The Sector will be headquartered in MUKA and, for the military component will comprise of a light infantry brigade made up of three light infantry battalions, a transport company, a signals platoon, an air utility company, an engineer company, a support company and a mechanized infantry company. Military observers will also be present and will report directly to Sector HQ.

Two infantry battalions will be made up of ENDF, based at MUKA and MALDOSA. The third battalion will be based in XALKSA. A 200+ strong force will be deployed to MIA on request from the HOM after a spate of recent attacks in the area. This will be a multinational force.

A screenshot of a cell phone

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**Figure 1. Sector 3, 1st Battalion Disposition of Forces**

A close up of a map

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**Figure 2. Country map**

**The UN Country Team in Carana consists of the following organizations:**

**World Food Program (WFP)**

Responsible for food distribution programmes and maintains offices in Galasi, Amsan, Corma, Folsa and Alur.

**United Nations Children’s Fund (UNICEF)**

The lead agency for programmes helping children; it has offices in Galasi, Folsa and Corma.

**The UN High Commissioner for Refugees (UNHCR)**

Protects and assists refugees; it has offices in Galasi, and Alur.

**The World Health Organisation (WHO)**

Coordinates international health programmes; it has an office in Galasi.

**The UN Office of the High Commissioner for Human Rights (OHCHR)**

A small team based in Galasi, who are responsible for monitoring and reporting on human rights issues throughout the country.

**United Nations Development Program (UNDP)**

Responsible for UN development activities. The UNDP Resident Representative is also the UN Resident Coordinator and chairs weekly UN country team meetings in Galasi, attended by the heads of all the agencies above. She is currently the Designated Official for Security in Carana.

**NGOs**

A total of fifty international and local NGOs operate throughout Carana, providing services in various sectors including food, health, water, hygiene, sanitation, refugee and IDP issues, children’s issues and women’s issues. Additionally, the International Committee of the Red Cross and Red Crescent Society (ICRC), mandated to assist victims of war, is present in Maroni, Arum, Cereni, Maldosa, Corma, Folsa, Faron, Sureen, and Alur.

**THE SECURITY COUNCIL RESOLUTION 1544**

 S/RES/1544 (2018)

**Adopted by the Security Council at its 5923rd meeting, on 13 JAN 2018**

*The Security Council,*

*Expressing* its utmost concerns at the dire consequences of the prolonged conflict for the civilian population throughout Carana, in particular the increase in the number of refugees and internally displaced persons (IDP),

*Stressing* the urgent need for substantial humanitarian assistance to the Carana population,

*Deploring all* violations of human rights, particularly atrocities against the civilian populations, including acts of sexual violence, in Carana, and recalling its resolutions 1325 (2000), 1820 (2008), 1888 (2009) and 1889 (2009) on women, peace and security, its resolutions 1612 (2005) and 1882 (2009) on children and armed conflict and its resolution 1674 (2006) and 1894 (2009) on the protection of civilians in armed conflicts,

*Commending* the efforts of, and reiterating its full support for the 8th Continent Regional Coalition, the United Nations Secretary-General, and the leaders of the region to promote peace and stability in Carana,

*Taking note,* with appreciation, of the reports of the United Nations Commission on Human rights Special Rapporteur on the Situation of Human Rights in Carana,

*Deploring* all violations of human rights, particularly against civilian population, and urging the new Carana Government of National Reconciliation (GNR) to take all necessary measures to put an end to impunity and ensure the continued promotion and protection of human rights,

*Emphasising* the need for all parties to safeguard the welfare and security of humanitarian workers and United Nations personnel in accordance with applicable rules and principles of international law,

*Mindful* of the need to hold accountable violations of international humanitarian law and urging the Carana Government of National Reconciliation to ensure the protection of human rights and the establishment of a state based on the rule of law and of an independent judiciary are among its highest priorities,

*Taking note* of the Kalari Peace Agreement reached by the key parties on 10 May 2017 and *urging* all parties to work without delay towards a broad political consensus on the nature and duration of the political transition,

*Welcoming* the human rights commitments contained in the Kalari Peace Agreement

*Reaffirming* that the primary responsibility for implementing the Kalari Peace Agreement rests with the parties, and urging the parties to move forward with implementation of these agreements immediately in order to ensure the peaceful formation of a new GNR,

*Noting* that lasting stability in Carana will depend on peace in the sub-region, and emphasising the importance of cooperation among the countries of the sub-region, as well as the need for coordination of United Nations efforts to contribute to the consolidation of peace and security,

Determining that the situation in Carana continues to constitute a threat to international peace and security in the region, to stability in the 8th Continent sub-region, and to the peace process for Carana,

*Acting* under chapter VII of the Charter of the United Nations,

1. *Decides* to establish the United Nations Assistance Mission Carana (UNAC), for a period of 6 months and further decides that UNAC will consist of up to [6,800] United Nations military personnel, including up to [200] military observers and [160] staff officers, and up to [1250] civilian police officers including formed units to assist in the maintenance of law and order throughout Carana, and the appropriate civilian component;
2. *Welcomes* the appointment by the Secretary-General of his Special Representative for Carana to direct the operations of UNAC and coordinate all United nations activities in Carana;
3. *Decides* that UNAC shall have the following mandate:

Support for the implementation of the Kalari Peace Agreement:

1. to observe and monitor the implementation of the peace agreement and investigate violations of the ceasefire;
2. to establish and maintain continuous liaison with the field headquarters of all parties’ military forces;
3. to develop, as soon as possible, preferably within 30 days of the adoption of the resolution, in cooperation with relevant international financial institutions, international development organisations, the GNR and donor nations, an action plan for the overall implementation of a voluntary disarmament, demobilisation, and reintegration (DDR) programme for all armed parties; with particular attention to the special needs of child combatants and woman; and addressing the inclusion of non-Carana combatants;
4. to carry out voluntary disarmament and to collect and destroy weapons and ammunition as part of an organised DDR programme;
5. to provide security at key government installations, in particular ports, airports and other vital infrastructure;

Protection of Civilians:

1. to ensure the effective protection of civilians, including humanitarian personnel and human rights defenders, under imminent threat of physical violence, in particular violence emanating from any of the parties engaged in the conflict;
2. to ensure the protection of United Nations personnel, facilities, installations and equipment;
3. to support the efforts of the Carana (GNR) to ensure the protection of civilians from violations of international humanitarian law and human rights abuses, including all forms of sexual and gender-based violence;

Support for Humanitarian and Human Rights Assistance:

1. to facilitate the provision of humanitarian assistance, including by helping to establish the necessary security conditions;
2. to monitor the human rights situation, to contribute towards international efforts to protect and promote human rights in Carana and to fight impunity, with particular attention to vulnerable groups including refugees, returning refugees and IDPs, abductees, women, children and demobilised child soldiers, as well as provide human rights technical assistance as needed in close cooperation with other United Nations agencies, related organizations, government organizations and non- governmental organizations;

Support for Security reform:

1. To assist the GNR in monitoring and restructuring the police force of Carana, consistent with democratic policing and international standards, to develop a civilian police training programme, and to otherwise assist in the training of civilian police in cooperation with interested organisations and interested States;
2. To assist the GNR in the formation of a new and restructured Carana military in cooperation with international organisations and interested States;

Support for Implementation of the Peace Process:

1. To assist the GNR in conjunction with other international partners, in re- establishment of national authority throughout the country, including the establishment of functioning administrative structures at both national and local level;
2. To assist the government in restoring proper administration of natural resources;
3. To assist the new transitional government in preparing for national elections scheduled for no later than the middle of 2020;
4. To assist the new transitional government in conjunction with other international partners in developing a strategy to consolidate governmental institutions, including a national legal framework and judicial and correctional institutions;
5. *Demands* that the parties cease hostilities throughout Carana and fulfil their obligations under the Kalari Peace Agreement;
6. *Calls upon* all parties to cooperate fully in the deployment and operations of UNAC, to ensure the safety, security, and freedom of movement of United Nations’ and affiliated personnel throughout Carana;
7. *Encourages* UNAC within its capabilities and areas of deployment, to support the voluntary return of refugees and IDP;
8. *Requests* the new transitional Government to conclude a status-of-force agreement with the Secretary-General within 30 days of adoption of this resolution, and notes that pending the conclusion of such an agreement the model status-of force agreement dated 9 October 1993 (A/45/594) shall apply;
9. *Calls upon* all parties to ensure, in accordance with relevant provisions of international law, the full, safe and unhindered access of relief personnel to all those in need and delivery of humanitarian assistance, in particular to internally displaced persons and refugees;
10. *Recognizes* the importance of the protection of children in armed conflict, in accordance with its resolution 1379 (2004) and related resolutions;
11. *Demands* that all parties cease all use of child soldiers, that all parties cease all human rights violations and atrocities against the Caranian population, and stresses the need to bring to justice those responsible;
12. *Reaffirms* the importance of a gender perspective in peacekeeping operations and post-conflict peace building in accordance with resolution 1325 (2000), and in particular women’s rights under the Constitution to fully participate in the political, economic and social life spheres of Caranian life, recalls the need to address violence against women and girls as a tool of warfare, and encourages UNAC as well as the Caranian parties to actively address these issues;
13. *Reiterates* its demand that all States in the region cease military support for armed groups in neighbouring countries, take action to prevent armed individuals and groups from using their territory to prepare and commit attacks on neighbouring countries, refrain from any actions that might contribute to further destabilisation of the situation in the region, and declares its readiness to consider, if necessary, ways of promoting compliance with this demand;
14. *Calls on* the international community to consider how it might help future economic development in Carana aimed at achieving long-term stability and improving the welfare of its people;
15. *Stresses* the need for an effective public information capacity, including the establishment as necessary of United Nations radio stations to promote understanding of the peace process and the role of UNAC among local communities and parties;
16. *Calls on* the parties address the question of DDR and urges the parties, in particular the government of Carana, and rebel groups MPC and CISC, to work closely with UNAC, relevant assistance organisations, and donor nations, in the implementation of a DDR programme;
17. *Calls on* the international donor community to provide assistance for the implementation of a DDR programme, and sustained international assistance to the peace process, and to contribute to consolidated humanitarian appeals;
18. *Requests* the Secretary-General to provide regular updates, including a formal report every 90 days to the Council on the progress of the Kalari Peace Agreement and this resolution, including the implementation of UNAC’s mandate;
19. *Decides* to remain actively seized of the matter.

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**RULES OF ENGAGEMENT FOR THE MILITARY COMPONENT OF THE UNITED NATIONS ASSISTANCE MISSION CARANA**

**SPECIFIC RULES OF ENGAGEMENT FOR UNAC**

The following ROE have been authorised for use by UNAC Force:

**Rule 1 — Use of Force**

**Use of force, up to and including deadly force, is authorized:**

Rule 1.1 To defend oneself or other UN personnel against a hostile act or a hostile intent.

Rule 1. 2 To resist attempts to abduct or detain oneself or other UN personnel.

Rule 1.3 To defend against a hostile act or hostile intent members of units of the CDF or the CNP that one’s unit has been assigned to assist or support.

Rule 1.4 To resist attempts to abduct or detain members of units of the CDF or the CNP that one’s unit has been assigned to assist or support.

Rule 1.5 To defend individuals designated by the SRSG in consultation with the Force Commander against a hostile act or a hostile intent.

Rule 1.6 To resist attempts to abduct or detain individuals designated by the SRSG in consultation with the Force Commander.

Rule 1.7 To protect civilians, including humanitarian workers, under imminent threat of physical violence. When and where possible, permission to use force should be sought from the immediate superior commander.

Rule 1.8 To protect UN facilities, installations, equipment, areas or goods designated by the SRSG in consultation with the Force Commander, against a hostile act or hostile intent that involves a grave threat to life or of serious bodily injury.

Rule 1.9 To protect key facilities, installations, areas, equipment or goods designated by the SRSG in consultation with the Force Commander, against a hostile act or hostile intent that involves a grave threat to life or of serious bodily injury.

Rule 1.10 Against any individual or group that, through the use or threat of the use of armed force, limits or intends to limit the freedom of movement of UN personnel, in order to ensure their freedom of movement. When and where possible, permission to use force should be sought from the immediate superior commander.

Rule 1.11 Against any person or group that, through the use or threat of the use of armed force, limits or tends to limit the freedom of movement of humanitarian workers, in order to ensure their freedom of movement. When and where possible, permission to use force should be sought from the immediate superior commander.

Rule 1.12 Against any person or group that, through the use or threat of the use of armed force, limits or intends to limit the freedom of movement of members of units of the CDF or of the CNP that one’s unit has been assigned to assist or support, in order to ensure their freedom of movement. When and where possible, permission to use force should be sought from the immediate superior commander.

Rule 1.13 To prevent or put a stop to the commission of a particularly serious crime that involves a grave threat to life or of serious bodily injury.

Rule 1.14 To prevent or put a stop to acts of civil unrest. When and where possible, permission to use force should be sought from the immediate superior commander.

Rule 1.15 To prevent the supply of weapons, related materiel, military advice and training and other supplies and logistic support to illegal armed groups, including illegal foreign armed groups, when supporting the CDF. When and where possible, permission to use force should be sought from the immediate superior commander.

Rule 1.16 To prevent or suppress hostile activities or operations by illegal armed groups, including illegal foreign armed groups. When and where possible, permission to use force should be sought from the immediate superior commander.

Rule 1.17 To prevent forcible passage by individuals or groups through roadblocks, checkpoints or cordons whose establishment has been authorized by the Force Commander if that forcible passage involves a grave threat to life or of seriously bodily injury.

Rule 1.18 Against any person or group that, through the use or threat of the use of armed force, is preventing or demonstrating an intent to prevent oneself or other members of one’s unit from carrying out lawful orders issued by a superior commander, in order to ensure the ability of oneself or of other members of one’s unit to carry out those orders.

**Use of force, excluding deadly force:**

Rule 1.19 To protect UN facilities, installations, equipment, areas or goods designated by the SRSG in consultation with the Force Commander, against a hostile act or a hostile intent that does NOT involve a grave threat to life or of serious bodily injury.

Rule 1.20 To protect key facilities, installations, equipment, areas or goods designated by the SRSG in consultation with the Force Commander, against a hostile act or a hostile intent that does NOT involve a grave threat to life or of serious bodily injury.

Rule 1.21 Against any person or group that, through the use or threat of the use of unarmed force, limits or intends to limit the freedom of movement of UN personnel, in order to ensure their freedom of movement.

Rule 1.22 Against any person or group that, through the use or threat of the use of unarmed force, limits or intends to limit the freedom of movement of humanitarian workers, in order to ensure their freedom of movement.

Rule 1.23 Against any person or group that, through the use or threat of the use of unarmed force, limits or intends to limit the freedom of movement of members of units of the CDF or of the CNP that one’s unit has been assigned to assist or support, in order to ensure their freedom of movement.

Rule 1.24 To prevent or put a stop to the commission of a crime when providing assistance to the CDF or the CNP.

Rule 1.25 To disperse assemblies that are unlawful but not violent. When and where possible, permission to use force should be sought from the immediate superior commander.

Rule 1.26 To prevent forcible passage by individuals or groups through roadblocks, checkpoints or cordons whose establishment has been authorized by the Force Commander if that forcible passage does NOT involve a grave threat to life or of seriously bodily injury.

Rule 1.27 Against any person or group that, through the use or threat of the use of unarmed force, is preventing or demonstrating an intent to prevent oneself or other members of one’s unit from carrying out lawful orders issued by a superior commander, in order to ensure the ability of oneself or of other members of one’s unit to carry out those orders.

Rule 1.28 To prevent the escape of any apprehended or detained person, pending hand-over to appropriate civilian authorities.

**Rule 2 — Use of Weapon Systems**

Rule No 2.1 Use of explosives in order to destroy weapons, ammunition, mines and unexploded ordnance, in the course of the disarmament operation, is authorised.

Rule No 2.2 Indiscriminate pointing of weapons in the direction of any person is prohibited.

Rule No 2.3 Firing of weapons other than for organised training and as authorised in these ROE, is prohibited.

Rule No 2.4 Firing of warning shots is authorised.

Rule No 2.5 Use of riot control equipment and agents is authorised.

Rule No 2.6 Use of lasers for survey, range finding and targeting is authorised.

Rule No 2.7 Use of explosives in order to destroy installations, facilities, equipment, supplies or workings is authorized, in the course of operations to prevent the provision of support to illegal armed groups.

**Rule 3 — Authority to Carry Weapons**

Rule No 3.1 Carriage of loaded personal weapons is authorised.

Rule No 3.2 Overt carriage by individuals of hand-held support weapons such as machine guns, light mortars and handheld anti-tank weapons, is authorised.

Rule No 3.3 Deployment and carriage of weapons on or in vehicles, aircraft and vessels, are authorised.

**Rule 4 — Authority to Detain, Search and Disarm**

Rule No 4.1 If the use of force against a person or group is authorized by Rule 1, detention of that person or of members of that group is also authorized.

Rule No 4.2 Searching of detained persons for weapons, ammunition and explosives, is authorised.

Rule No 4.3 Disarming of armed individuals or groups, when so directed by the Force Commander, is authorised.

**Rule 5 — Duty to Hand-over Detained Persons to Appropriate Authorities**

Rule No 5.1 All detained persons are to be handed over to appropriate local authorities as soon as possible.

**RULES OF ENGAGEMENT FOR UNAC DEFINITIONS AND AMPLIFICATIONS**

1. **Civil Unrest:** The commission, perpetration or instigation of acts of violence, which affect public peace and order.
2. **Collateral Damage:** Incidental loss of civilian life, injury to civilians, or damage to civilian property not part of an authorised target.
3. **Cordon:** A deployment of UNAC personnel around an object or location with the intent to isolate an area and restrict and/or control both access and exit.
4. **Detainee:** A detainee or detained person means any person deprived of personal liberty except as a result of conviction of an offence.
5. **Force:** The use of, or threat to use, physical means to impose one's will. Such means are used by formed, armed and disciplined bodies of UNAC and generally imply the potential to use appropriate and authorised levels of violence.

* **Armed Force**: The use of weapons, including firearms and bayonets. Note: Such weapons are generally designed to inflict deadly force, but can also be used in a non-deadly manner.
* **Deadly Force**: The level of force, which is intended, or is likely to cause, death regardless of whether death actually results. This is the ultimate degree of force.
* **Non-deadly Force:** The level of force which is neither intended nor likely to cause death, regardless of whether death actually results.
* **Minimum Force:** The minimum degree of authorised force, which is necessary and reasonable in the circumstances, to achieve the objective. The minimum degree of force is applicable whenever force is used. Minimum force can be deadly force if appropriate.
* **Unarmed Force**: The use of physical force, short of the use of “armed force.” NOTE: Riot control equipment and other “non-lethal weapons” may be used as a means of unarmed force as they are designed and intended to be used so as not to inflict deadly force.

1. **Hostile Act**: An action where the intent is to cause death, serious bodily harm or destruction of designated property.
2. **Hostile Intent**: The threat of imminent and direct use of force, which is demonstrated through an action, which appears to be preparatory to a hostile act. Only a reasonable belief in the hostile intent is required before the use of force is authorised. Whether or not hostile intent is being demonstrated must be judged by the on-scene commander, on the basis of one or a combination of the following factors:

* The capability and preparedness of the threat.
* The available evidence which indicates an intention to attack.
* Historical precedent within the Mission’s Area of Operations (AO).

1. **Loaded Weapon**: A weapon that has ammunition attached to it but none of the ammunition has been placed into the chamber.
2. **Positive Identification**: Assured identification by a specific means. This can be achieved by any of the following methods: visual, electronic support measures, flight plan correlation, thermal imaging, passive acoustic analysis or Identify Friend or Foe (IFF) procedures.
3. **Proportionality**: The amount of force which is reasonable in intensity, duration and magnitude, based on all facts known to the commander at the time, to decisively counter a hostile act or hostile intent, or to achieve an authorised objective.
4. **Reasonable Belief**: Reasonable belief is when the Commander, or individual, logically and sensibly concludes, based on the conditions and circumstances in which he or she finds him or herself that a hostile threat exists.
5. **Self-Defence**: Self-Defence is the use of such necessary and reasonable force, including deadly force, by an individual or unit in order to protect oneself, one’s unit and all UN personnel against a hostile act or hostile intent.
6. **Pre-emptive Self-Defence**: Action taken to pre-empt an imminent hostile act, where there is clear indication that an attack is about to be made against oneself, one’s unit and UN personnel.
7. **UN Personnel**: All members of UNAC (including locally recruited personnel whilst on duty), UN officials and experts on mission on official visits.
8. **Other International Personnel**: Personnel belonging to international agencies associated with UNAC in the fulfilment of its mandate, and other individuals or groups formally and specifically designated by the SRSG in consultation with UN HQ, including:

* Members of organisations operating with the authority of the UN Security Council (SC) or General Assembly (GA);
* Members of authorised charitable, humanitarian or monitoring organisations;
* Other individuals or groups specifically designated by the Special Representative of the Secretary General (SRSG); but excluding foreign nationals, such as businessmen and journalists.

1. **Warning Shots**: A warning shot is a signal demonstrating resolve, or a capability to convince persons to stop threatening actions, or as a warning and potential precursor to the actual cause death, injury or severe damage.

**AMPLIFICATIONS**

1. **General Amplification to Rule No 1**: Rule No 1 generally allows the use of force up to and including deadly force in given circumstances. Any use of force must be graduated where possible and only the minimum force necessary to meet the threat must be used. This does not prevent the immediate use of deadly force if the threat to life is imminent and there is no alternative but to use deadly force immediately to remove that threat.
2. For the purposes of both Rule No 1.8, 1.9, 1.19 and Rule No 1.20, the following property has been designated by the SRSG and declared “designated property” by the Force Commander:
   1. UNAC aircraft and vessels, including any aircraft and vessels of Troops Contributing Countries (TCC) that are deployed to the UNAC AO for the purpose of assisting UNAC to fulfil the mandate (whether occupied or not);
   2. Occupied UNAC vehicles, premises and compounds (including police stations, courts, and other central and district administration buildings);
   3. Occupied vehicles, premises and compounds of organisations and agencies who are assisting UNAC in the fulfilment of its humanitarian mandate, including United Nations specialised agencies, other international organisations, foreign government agencies and non-governmental organisations;
   4. Carana community power stations and water reticulation and purification plants (whether occupied or not);
   5. UNAC arming and refueling points (whether occupied or not); and
   6. UNAC and civil communication facilities essential for UNAC command and control between battalions, units and higher headquarters (whether occupied or not).
3. **Amplification to Rule No 1.10, 1.11 and 1.12:** Deadly force may only be used (as part of a graduated response where possible) where the attempt to restrict movement if successful would likely result in the loss of life or serious injury to any person. Deadly force may only be used (as part of a graduated response where possible) where the attempt to prevent UNAC personnel from discharging their duty if successful would likely result in the loss of life or serious injury to any person. This does not prevent you from using non- deadly force to resist the individual or groups attempt to prevent you from discharging your duties. If in so doing the response from that individual or group threatens yours or any other person’s life, or is likely to cause serious injury, then deadly force may be used.
4. **Amplification to Hostile Intent:** Hostile intent will always be determined on a case- by-case basis and will be heavily dependent upon local conditions. Hostile intent can be demonstrated by:
   1. Persons that carry out armed attacks against UN personnel and other international personnel or against those falling under the protection of UNAC;
   2. Members of any military or paramilitary group or organisation carrying personal weapons or manning weapon systems, whether or not they are engaged in attacks against UN personnel, other international personnel and/or those falling under the protection of UNAC;
   3. Civilians that spontaneously take up arms against UN personnel, other international personnel or those falling under the protection of UNAC.
5. In the case of Militia or suspected Militia, at all times the determination of hostile intent shall require weapons being carried in a manner deemed ready for immediate use. When UNAC Security Force units are confronted by Militia or suspected Militia who are:
   1. Positively recognised, and b. Carrying firearms and/or grenades, and
   2. Operating in a tactical manner, then such Militia or suspected Militia may be engaged on the basis that they are demonstrating hostile intent. In such circumstances, the requirement to provide a warning in accordance with paragraph 6 of Annex C is not mandatory.
6. NOTE: “***Positively recognised***” means that a person is observed and is understood to be Militia or suspected Militia.
7. “***Operating in a tactical manner”*** shall be determined on a case-by-case basis. The following examples would normally constitute operating in a tactical manner:
   1. Militia or suspected Militia patrolling in a tactical manner or military formation;
   2. Militia or suspected Militia in an ambush position;
   3. Militia or suspected Militia deployed or deploying at a roadblock(s);
   4. Militia or suspected Militia deployed or assessed as deploying as an armed sentry, or sentries to their position.

**RULES OF ENGAGEMENT FOR UNAC SUPPORTING DIRECTIONS AND PROCEDURES**

**General**

1. **Identification**: Assured identification (positive identification) of hostile forces (groups and persons) prior to engagement is required. Unobserved indirect fire is prohibited.
2. **Civil Action**: UNAC military personnel should avoid any action that would result in the disruption of legitimate civil activities in the mission area.
3. **Prohibitions**: The following prohibitions are to be observed, even when authorised ROE are being used:
4. Use of certain weapons and methods of combat under the relevant instruments of international humanitarian law, including, in particular, the prohibition on the use of asphyxiating, poisonous or other gases and biological methods of warfare; bullets which explode, expand or flatten easily in the human body; and certain explosive projectiles. The use of certain conventional weapons, such as non-detectable fragments, anti- personnel mines, booby traps and incendiary weapons is prohibited.
5. Use of weapons or methods of warfare which may cause superfluous injury or unnecessary suffering, or which are intended, or may be expected to cause, widespread, long-term and severe damage to the natural environment.
6. Use of weapons or methods of combat of a nature to cause unnecessary suffering.
7. Attacks on monuments of art, architecture or history, archaeological sites, works of art, places of worship and museums and libraries, which constitute the cultural or spiritual heritage of peoples. In its area of operation, the UNAC shall not use such cultural property or their immediate surroundings for purposes, which may expose them to destruction or damage. Theft, pillage, misappropriation and any act of vandalism directed against cultural property are strictly prohibited. e. Use of methods of warfare to attack, destroy, remove or render useless objects indispensable to the survival of the civilian population, such as foodstuff, crops, livestock and drinking water installations and supplies.
8. Making installations containing dangerous forces, namely dams, dikes and nuclear electrical generating stations, the object of military operations if such operations may cause the release of dangerous forces and consequent severe losses among the civilian population.
9. Engaging in reprisals against objects and installations protected under this paragraph above. h. Engaging in punitive use of force and retaliation.
10. **Cordon Principles**: Cordons may only be conducted if the Force Commander judges that the situation warrants isolation of the area and that such action is consistent with the mandate of UNAC.

**WARNING PROCEDURES**

1. **General**: The use of armed force is normally a measure of last resort, in response to a hostile act or hostile intent. If a confrontation threatens the UNAC military personnel on the scene, the UN aim must be to dissuade the parties concerned from carrying on.
2. **Graduation**: The following graduated procedures are to be observed:
3. **Verbal Negotiation and/or Visual Demonstration**: Every effort must be made to warn any potential or actual aggressor before UNAC military personnel respond with force. The aim is to stop hostile activity.
4. **Unarmed Force:** If the preceding step is unsuccessful, where possible, minimum unarmed force may be employed. If riot control equipment or other non-lethal weapons are possessed by UNAC personnel trained to use those weapons, and where they would be an effective means to bring the threat to an end before having to resort to deadly force, then they may be used if authorised by the on-scene commander.
5. **Charge Weapons:** An attempt should be made to make use of the visual and audible effect of charging weapons to convince any aggressor that failure to stop the aggressive activity may result in the use of deadly force.
6. **Warning Shots:** If the threat continues, and subject to the orders of the commander on the scene, warning shots should be fired at a safe point of aim, to avoid causing personal injury or collateral damage.
7. **Armed Force**: If all the preceding steps, including the use of unarmed force, are unsuccessful and there are no other choices available, the necessary armed force may be used. The decision to open fire will be made only on the order and under the control of the on-scene Commander unless there is insufficient time. Before opening fire, a final warning is to be given as follows:
8. The warning may be given verbally (in English, in the local language, and/or visually by a sign or by illumination (e.g. hand- held red flares, searchlights, etc.).
9. You are to challenge in English: **“UNITED NATIONS, HALT OR I SHOOT**.”
10. This challenge will be repeated in French as follows: **“NATIONS UNIES HALTE OU JE TIRE.”**
11. The verbal or visual warning should be repeated as many (and at least three) times as necessary to ensure understanding or compliance.

**FIRING PROCEDURES**

1. **Opening Fire Without Warning**: The only circumstance, under which it is permitted to open fire without attempting to follow the warning sequence, would be if an attack by an aggressor comes so unexpectedly that, even a moment’s delay could lead to death of, or grievous injury to oneself, UN personnel and those who are under the protection of UNAC as specified in this ROE.
2. **Procedures During Firing**: The use of firearms must be controlled, and there should be no indiscriminate firing. Automatic fire should only be used as a last resort. The following points must be kept in mind during fire:
   * 1. Fire must be aimed.
     2. Minimum rounds are to be fired to achieve the authorised objective.
     3. All necessary precautions are to be taken to avoid collateral damage.
3. **Procedures After Firing**: After any weapon firing, the following actions are to be taken:
4. **Medical Assistance**: All injured persons should be given first aide as soon as possible, when such aide can be given without endangering lives.
5. **Recording**: Details of the incident are to be recorded, including:
6. Date, time and place of firing;
7. Unit and personnel involved; iii.
8. The events leading up to firing;
9. Why UNAC personnel opened fire;
10. Who or what was fired on;
11. The weapons fired and the number of rounds discharged;
12. The apparent results of the firing; and
13. A diagram of the incident scene.
14. **Reporting:** Following an immediate report that firing has taken place, the above information and the current situation are to be reported through the UN chain of command, to the Force Commander and UN HQ (DPKO), as rapidly as possible.

**RULES OF ENGAGEMENT FOR UNAC WEAPON STATES**

1. General: The weapon states provided below might be authorised by the Force Commander, as he believes operationally appropriate, provided the state selected does not exceed the authority given by Security Council resolution 1544 (2017and all other relevant subsequent resolutions and as defined in the Numbered ROE for UNAC.
2. In urgent circumstances, a commander or individual soldier may increase weapon readiness. As soon as the immediate danger has passed, weapon readiness status will be returned to that ordered by higher authority.

**Graduated Weapon States:**

**State 1 — Personal Weapons (Rifles, carbines, light machine guns and pistols):**

1.1 Personal weapons should be carried in a non-offensive manner.

1.2 Personal weapons may be carried by all military personnel serving in formed UNAC military units, but ammunition is to be carried separately from the weapon.

1.3 Personal weapons may be carried and have a loaded magazine or belted ammunition inserted in or attached to the weapon. However, the weapon may not be cocked and no ammunition may be inserted into the breech or chamber.

1.4 Personal weapons may have a loaded magazine or belted ammunition inserted in or attached to the weapon. The weapon may be cocked and ammunition may be inserted into the breech or chamber.

**State 2 — Anti-tank weapons:**

2.1 Anti-tank weapons/RPG may be carried covertly by designated UNAC

military personnel.

2.2 Anti-tank weapons/RPG may be carried overtly by designated UNAC military personnel.

**State 3 — Riot Control Weapons:**

3.1 No riot control weapons may be carried.

3.2 Riot control weapons may be issued to UNAC patrols, but are to be

carried in patrol vehicles and must remain out of sight of non-UN personnel.

3.3 Riot control weapons may be carried openly.

**State 4 — Laser Equipment:**

4.1 Ground / vehicle laser sources may only be used in the "Passive" state.

4.2 Ground / vehicle laser sources may be used in the "Active" mode. All reasonable precautions are to be taken to ensure that no injuries are inflicted as a result of the use of laser.

**State 5 — Mortars:**

5.1 Mortars may be carried covertly by UNAC patrols and in UNAC vehicles.

5.2 Mortars may be carried overtly by UNAC patrols and in UNAC vehicles.

**State 6 — Ground, Vehicle and Aircraft-Mounted Weapons (Crew served weapons):**

6.1 Ground, vehicle, vessel and aircraft-mounted weapons may be deployed, but not loaded with missiles or shells. Where the weapon system contains ammunition integral to the system, the weapon is not to be prepared for firing, i.e., not “charged.”

6.2 Ground, vehicle, vessel and aircraft mounted weapon systems may be prepared for firing, i.e., “charged.”

**State 7 — Helicopter-Mounted Weapons:**

7.1 Helicopter-mounted missiles may not be deployed.

7.2 Helicopter-mounted guns and missiles may be deployed. Guns may have a loaded magazine or belted ammunition inserted in or attached to the weapon, but they may not be cocked, and no ammunition may be inserted into the breech or chamber. Missiles may not be prepared for immediate firing.

7.3 Helicopter mounted guns and missiles may be deployed. Guns may have a loaded magazine or belted ammunition inserted in or attached to the weapon and may be cocked and ammunition inserted into the breech or chamber. Missiles may be prepared for immediate firing.

**NB:** Instructions for armoured-fighting vehicles (AFV), artillery\howitzer guns, anti- aircraft systems and any additional weapon systems authorised by the United Nations will be issued separately.