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## **Stockpile Management: Security**

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### **Overview**

Stockpile security refers to the protection of ammunition, weapons, and explosives against any malevolent actions, including theft, sabotage, damage, or tampering.

Damage, tampering, and sabotage create explosive risks to the safety of personnel and surrounding populations (CHAPTER 13) and impair the functioning of security forces. The diversion of munitions (CHAPTER 15) contributes to the illicit trade in ammunition and allows criminal factions and politically motivated groups to augment their firepower. Stolen ammunition from the national stockpile can also be attractive because of its application in wealth-generating civilian pursuits, such as illegal fishing and quarrying. Ensuring stockpile security is therefore a primary consideration for all conventional ammunition stockpiles, whether they are small or large in volume.

### **Securing stockpiles**

The most effective means to ensure security is by limiting the access of unauthorized personnel. This can be achieved through a variety of ways, which are discussed below. While the following sections address measures taken to limit unauthorized entry, it is important to stress that ensuring physical security is only one component of comprehensive security measures applicable to the national stockpile. Planning (CHAPTER 8), accounting (CHAPTER 5), and marking (CHAPTER 3) also have a critical role to play in discouraging or disrupting malevolent actions.

## Controlled access measures

Stockpile best practice is to store batches of different types of ammunition in separate storage areas and bunkers. Effective stockpile planners control access to these different locales, and to different lots within them, through the following physical means:

- Access routes to bunkers are locked and relatively impermeable (e.g. reinforced doors and well embedded doorframes).
- Immovable and lockable cages separate lots.
- All locks have individual keys (a master key can be kept, well-secured, in case of emergency).

The perimeter of the stockpile facility is also subject to procedures that are designed to ensure controlled access to personnel and materiel:

- When not actually in use, gates are locked and supervised.
- Entering and departing personnel, vehicles, and materiel are fully registered, with no exceptions.
- Normally, all movement of materiel is checked against attached docketts.
- Authorized personnel display visible security badges at all times.

Best practice also suggests that controlled access should extend to the safety zone (from which civilian and non-essential buildings are excluded). Moreover, persons accessing the zone should be constantly monitored, even in cases where access (e.g. by surrounding communities) is restricted only to a limited degree.

## Fencing and external lighting systems

Fencing and external lighting allow stockpile security personnel to monitor the movement of personnel and materiel in and out of the stockpile, and ensure passage occurs only through controlled access points.

Fences should provide security, but also facilitate monitoring. Supported chain-link fencing, embedded in concrete, is a good option in this case because it provides a security barrier, but does not hinder observation. However, maintaining security necessitates regular inspection of the physical integrity of fences and immediate repairs to fences that are damaged and potentially insecure.

Due to the fact that fences can be pierced or climbed, effective stockpile security dictates constant observation of any points where persons could approach them.

Approach points should be well lit (from around 15 minutes before dusk and after dawn) and regularly maintained. If power is drawn from a national grid, backup transformers should be in place to supply lighting in the event of power failure.

The most sophisticated systems include sensor fences, which notify personnel of any attempts to bypass or penetrate perimeter security. These fences are, of course, expensive and require regular maintenance and training for personnel.

## Surveillance equipment

Visual (and sometimes audio) surveillance increases the monitoring capacity of stockpile security personnel. However, it is important to note that while these surveillance media augment the vigilance of personnel, they do not replace them. Well-secured stockpiles require that cameras should operate during the day and night and should be:

- located so that they cover all gates; doors; the perimeter fence; and, ideally, the interiors of storage bunkers;
- monitored, in real time, by personnel; and
- linked to recording facilities to enable review in the event of loss or theft.

In some cases, visual and audio equipment can be computerized with routines that identify hostile movement.

Sophisticated surveillance equipment can substantially improve stockpile security, but it requires constant upkeep and trained personnel to ensure that it functions properly. The cost of its upkeep must therefore be a factor in any long-term stockpile security budgeting.

## Guarding the site

Walls and fences do not prevent unauthorized access to a stockpile, but merely delay illegal entry until security personnel can intervene to prevent it. The physical presence of stockpile security personnel is essential and is the most important factor in security. Training, motivation, and regular pay are key ingredients in ensuring the effectiveness of the personnel charged with securing stocks. By contrast, poor pay and training can encourage staff involvement in malfeasance (including being subject to bribery or tempted into the theft of ammunition for sale) or misfeasance (such as laxity in carrying out guard duties and failing to follow procedures).

Guarding patterns vary considerably, but there are essentially three different guard functions:

- *Static guard posts* enable personnel to oversee the stockpile and intercept potential intrusions. Static guards need to be able to both see and act (either physically or by alerting mobile guards) to stop intrusion or extrusion of people and materials.
- *Mobile guards* are a deterrent to potential intrusion or extrusion, and can intercept any unauthorized movement of persons and materiel. Randomized patrolling patterns hinder planned illicit entry to the stockpile.
- *Inspection* is a function that can only be performed by well-supervised personnel and includes physical checks on the integrity of security devices, including fences, locks, lighting, and cameras.

The use of animals assists the guarding of stockpiles. Dogs are a notable security measure, but geese and other animals that audibly respond to intrusion can be used to supplement human guards.

## Alarm systems

Alarm systems alert stockpile security personnel to unauthorized entry. Ideally, alarm systems should be fitted to all doors and access points, including fences and barriers that are not under constant observation.

## Security regulations

One of the most critical aspects of stockpile security is compiling and advocating comprehensive security regulations (which include the measures noted above). While security regulations are always a national responsibility, they constitute a minimum standard for security. Local security authorities (such as the base commander or station chief) can and do augment national measures where deemed necessary. Although the following points appear elementary, the most effective national stockpile security regulations are:

- published in an authoritative version;
- available to all personnel that require familiarization;
- clear, to the extent that they can be understood by all personnel;

- consistent and without internal contradictions;
- feasible within the framework of available personnel, skills, and technologies; and
- universal, and applicable to all stockpiles under the national authority.

In particular, effective national stockpile security authorities carry out the following functions:

- regular publishing of comprehensive security regulations;
- the provision of adequate resources to ensure the implementation of these regulations; and
- regular inspection to ensure that local stockpile managers comply with the regulations.

At the local level, stockpile security authorities have a pivotal role in augmenting national regulations by ensuring that:

- all personnel at the stockpile are aware of the national and local regulations;
- all personnel are trained in, and adhere to, the regulations; and
- additional regulations are issued to meet specific local conditions, if necessary.

## Model security plan

Countries' stockpile security measures differ in scope and scale, but it is clear that a security plan is the foundation of effective stock security. In cases where stockpile security is comprehensive, plans follow national regulations, adapt to the specific realities of the stockpile in question, and are known in detail to the management and staff of stockpile facilities.

The following model security plan has been adapted from the Organization for Security and Co-operation in Europe's *Best Practice Guide on National Procedures for Stockpile Management* (OSCE, 2003). The plan is not technical in nature, but is intended to provide a background for those who need to supervise and evaluate security aspects of stockpile management. It can also be used as a checklist by non-security personnel to assess whether security needs have been properly attended to. Other guides, such as the United States's (2005) *Physical Security Handbook 440-2-H*, are also available.

Table 7.1

**Model security plan**

Item	Comments
1. Registration of the name, location, and telephone number of the establishment security officer	There must be one, single security authority. This person, or a deputy, must be contactable 24 hours a day.
2. Scope of the plan	What does the plan cover: which areas, individuals, and possible scenarios?
3. Content of the stockpile	Types of weapons Types of ammunition
4. Security threat	What sorts of interests might try to remove weapons, and when (e.g. night-time theft, armed robbery, children)?
5. Detailed geographic map of the site location and its surroundings	This should clearly indicate fences, access roads, bunkers/storage areas, access points, and the safety zone at around 1:20,000 resolution.
6. Detailed diagram of the layout of the site, including locations of: <ul style="list-style-type: none"> <li>• all buildings and structures;</li> <li>• entry and exit points;</li> <li>• electricity generators/substations;</li> <li>• water and gas main points;</li> <li>• road and rail tracks;</li> <li>• wooded areas;</li> <li>• hard- and soft-paved areas; and</li> <li>• guard points</li> </ul>	Ideally a proper survey map of the site at around 1:5,000 scale or smaller
7. Outline of the physical security measures to be applied to the site, including, but not limited to, details of: <ul style="list-style-type: none"> <li>• fences, doors, and windows;</li> <li>• lighting;</li> <li>• perimeter intruder detection systems;</li> <li>• intruder detection systems;</li> <li>• automated access control systems;</li> <li>• guards;</li> <li>• guard dogs;</li> <li>• locks and containers;</li> <li>• control of entry and exit of persons;</li> <li>• control of entry and exit of goods and materiel;</li> <li>• secure rooms;</li> <li>• hardened buildings; and</li> <li>• closed-circuit television</li> </ul>	

<p>8. Security responsibilities (including, but not limited to, the following personnel, as applicable):</p> <ul style="list-style-type: none"> <li>• security officer;</li> <li>• guards and guard commanders;</li> <li>• transport officer;</li> <li>• inventory management and verification personnel; and</li> <li>• all personnel authorized to have access to the site</li> </ul>	<p>The greatest possible specificity of responsibilities, even on a case-by-case basis, e.g. 'In the event of an attempted break-in, the security officer shall be responsible for ...'</p> <p>Even personnel with no specific security brief (transport officer, other personnel) may have security responsibilities, e.g. 'You are responsible for locking all doors that you have previously unlocked.'</p>
<p>9. Security procedures to be followed in:</p> <ul style="list-style-type: none"> <li>• stock reception areas;</li> <li>• pre-storage processing;</li> <li>• bunkers; and</li> <li>• during all stock withdrawals</li> </ul>	<p>For example, how are people to be admitted to perform these functions? What security procedures should be followed when withdrawing stocks?</p>
<p>10. Control of access to buildings and compounds</p>	<p>Details of fences, gates, how they operate, for whom they are to be opened, etc.</p>
<p>11. Transport procedures</p>	<ul style="list-style-type: none"> <li>• Who provides security?</li> <li>• How is handover to another authority to be secured?</li> <li>• How are external recipients to be identified?</li> </ul>
<p>12. Control of security keys (those in use and their duplicates)</p>	<ul style="list-style-type: none"> <li>• Where are keys to be located?</li> <li>• Who can have access to them?</li> </ul> <p>It is often a good idea to attach keys permanently to large, metal key tags so that they are highly visible. New technologies such as embedded radio frequency identification chips can aid in locating keys.</p>
<p>13. Security education and staff briefing</p>	<ul style="list-style-type: none"> <li>• How are the staff to be briefed?</li> <li>• When?</li> <li>• By whom?</li> </ul> <p>New personnel must be briefed as soon as possible. Refresher briefings should be conducted as a matter of course.</p>
<p>14. Action on discovery of loss</p>	<ul style="list-style-type: none"> <li>• The security aspects of every loss must be investigated.</li> <li>• Lessons must be drawn and amendments made to the security plan if necessary.</li> </ul>
<p>15. Details of response force arrangements (e.g. size, response time, orders, means of activation and deployment)</p>	<p>How and when to activate the site's guard response force? Expected response times and actions? How to contact the police/security forces? How long will it take them to respond?</p>
<p>16. Actions to be taken in response to activation of alarms</p>	<p>Who must deploy where when an alarm is sounded?</p>

17. Security actions to be taken in response to security emergency situations (e.g. robbery, attack)	Clear instructions on the use of force, on alerting police and security services, and on post-event investigation
18. Security actions to be taken in response to non-security emergency situations (e.g. fire or flood)	Procedures must be in place to coordinate activities of rescue and emergency teams with the security needs of the site (access in times of emergency, securing keys, avoiding theft during the confusion).

Source: OSCE (2003)

## Progress to date

Many of the world’s ammunition stockpiles remain critically insecure. In some countries, it is common to find unlocked and unguarded ammunition storage facilities that present very few obstacles to even the most casual intruder.

To date, the largest stockpiles have received the lion’s share of international stockpile security attention. However, research by the Small Arms Survey suggests that scale is often unrelated to insecurity, and that the smallest stocks can pose a severe threat to societies (Bevan, forthcoming).

The vast majority of insecure stocks—whether large storage facilities or smaller collections of munitions in police stations and military barracks—will not be addressed in the near future unless there is a radical change in international attention devoted to national stockpile security.

Although progress has been made in a handful of countries, and most notably by unilateral and multilateral assistance programmes, these cases remain the exception rather than the rule. One of the primary driving forces behind these international initiatives has been the security—and often destruction—of politically sensitive weapons such as man-portable air defence systems (MANPADS) (CHAPTER 12).

Nevertheless, the smallest of stocks, when subject to diversion (CHAPTER 15) and subsequent use in crime, insurrection, or unlawful commercial activities such as mining or fishing, arguably pose the greatest immediate danger for communities that reside in the immediate and near vicinities of stockpiles. Addressing high-significance weapons like MANPADS is a priority, but the effects of low-order stockpile insecurity may have equally deleterious impacts on lives, livelihoods, and development.

## Conclusion

Improving stockpile security can be resource-intensive, but it need not be in the short-term. In the world's worst-secured stockpiles, mere marginal improvements in security—such as the addition of a padlock or posting a guard—could drastically improve the security of national stockpiles. International assistance programmes are not a prerequisite, therefore, to achieving significant gains in stockpile security. In many countries, the only real barrier to achieving basic security, rather than a complete absence of security, is political will and recognition of the problem at hand.

That said, while such marginal improvements would undoubtedly have a real impact on the safety and security of the world's most insecure stockpiles, they are only a first step. The security of arms and ammunition has the potential to benefit a wide range of stakeholders (CHAPTER 17) equally, including governments, militaries, and civilian populations. Expenditure on stockpile security should not, therefore, simply be calculated as an investment in the security sector.

Stockpile insecurity is a growing issue on the international arms management agenda, but it is yet to be understood in sufficient depth. Until it is, the majority of the world's insecure stocks are likely to remain undetected and unaddressed. ■

## Further reading

OSCE (Organization for Security and Co-operation in Europe). 2003. *Handbook of Best Practices on Small Arms and Light Weapons: Best Practice Guide on National Procedures for Stockpile Management and Security*. FSC.GAL/14/03/Rev.2. Vienna: OSCE. 19 September.

## Bibliography

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