Afghanistan Mine Action Standards

AMAS 06.10

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Abandoned Improvised Mine Clearance

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Amendment Record

MANAGEMENT OF AMAS AMENDMENTS

The AMAS standards are subject to formal review on a yearly basis; however, this does not preclude amendments being made within the year for reasons of operational safety and efficiency, or for editorial purposes. As amendments are brought to this AMAS version, and to keep track of any change, they will be dated, given a number, and general details will be stated as shown in the table below.

As formal reviews are completed, new AMAS editions may be issued. Amendments up to the date of the new edition will be incorporated into the new edition and the amendment record table cleared. Recording of amendments will then start again until a further review is carried out.

Amendment Number	Amendment date	Amendment to Section	Amendment

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1. *Introduction*

An improvised mine is a victim operated improvised explosive device (VOIED) that is functioned using method similar to those found in conventional mines (pressure, tripwire, pressure release, etc.); 'victim operated' refers to the method of functioning the device and does not differentiate between the device being functioned by a person, vehicle, or other entity (such as an animal). Improvised mines become Abandoned Improvised Mines (AIMs) when they are no longer involved in active conflict.

This document details requirements to plan, execute and report clearance of Abandoned Improvised Mines (AIMs) in Afghanistan. It also details responsibilities and obligations of the organizations involved in the clearance of AIMs as part of their Mine Action (MA) program. Within this context, clearance of AIMs may be the primary activity conducted by mine action organizations in Afghanistan or it may be an associated activity with other mine action activities.

2. *Background*

Ongoing armed conflict in Afghanistan has created a problem with Explosive Ordnance (EO) contamination, which is severely affecting the civilian population. This impact includes the potential loss of life and injury of people within affected communities but also the safe return of refugees and Internally Displaced Persons (IDPs).

Similarly to Explosive Remnants of War (ERW) and mine contamination, AIMs adversely affect livelihoods, freedom of movement, economic recovery, and development. As a consequence, the mine action sector in Afghanistan is increasingly being called upon to address the humanitarian impact of the AIM contamination.

The Mine Action Programme of Afghanistan (MAPA) under the coordination of the Directorate of Mine Action Coordination (DMAC) and within its humanitarian mandate is responsible to save the people of Afghanistan from explosive hazards, support their livelihood and create a safe environment conducive to development

3. *Operating environment and compliance with Humanitarian principles*

In the particular context of Afghanistan, four conditions **shall** be in place for the clearance of AIMs and IEDs to be considered 'humanitarian':

1. Activities are driven exclusively by humanitarian protection needs and the goal of reducing human suffering of civilians affected by conflict, and do not include any aim relating to counter-terrorism, disruption, military objectives or support to force protection.
2. Activity takes place solely in a humanitarian permissive environment.
3. Activity shall not address any active/recently laid improvised device.
4. Activity should only intentionally target AIMs* (see chapter 9)

All clearance activities are to be carried out in accordance with the humanitarian principles of:

1. Protection, care and respect for human beings, which includes:
    1. Protecting life and health.
    2. Preventing and reducing suffering.
    3. Respect for human beings.
2. Neutrality. Not taking sides in any hostilities or in controversies based on political, racial, religious or ideological identity. Transparency and openness are important to remaining neutral.
3. Impartiality. Assistance is provided to all those who are suffering without discrimination.
4. Independence. Assistance must be autonomous from the political, economic, military or other objectives

Clearance organizations involved in clearance of AIMs or IEDs **shall** liaise with the local authorities and population prior to any operations. Community engagement also provides accurate and updated information about the nature and the scope of the contamination along with other information required to maintain security and safety of clearance organization personnel.

Clearance organizations **shall** get written consent from the local authorities and should get written consent from other key local stakeholders through engagement with the local councils. This process confirms that the device is "abandoned" by the entity that deployed it and that they can proceed with the clearance operations.

4. Scope

This AMAS describes the standard requirements for survey and clearance of AIM contaminated areas in Afghanistan within a humanitarian space and to the extent that the MAPA's impartiality and neutrality is maintained. These standards do not cover counter-IED operations, which are the prerogative of Afghanistan's military, law enforcement and security stakeholders, and should not be undertaken by members of the MAPA.

In addition, MA operators **shall** adhere to the MAPA's AIM Policy when conducting AIM operations.

5. Context

In-depth knowledge of the type of AIMs or IEDs in Afghanistan enables efficient identification of the resources, training, equipment, methods, and capabilities required to effectively clear AIM hazards. Considering the safety of the operator (and any tasks involving these devices) as a priority, these improvised devices must be studied to determine their components, functioning, and methods of employment within every particular context. This technical and operational information must be recorded and shared at national level by all actors engaged in AIM disposal to allow as accurate threat picture as possible. MA organizations shall take into account "the need to share" principle and the sensitivity of the information.

The "need to share" principle refers to the requirement for all MA organizations in Afghanistan to share information on AIMs and IEDs that they find with DMAC and other clearance organizations operating in the same area or region. This exchange of information will be managed by DMAC through monthly coordination meetings with all clearance organizations.

6. Guiding philosophy

Every AIM or IED clearance task is unique, and it is therefore not possible to enforce definitive rules; however, a disposal philosophy and principles can be applied to empower safe, effective and efficient AIM and IED disposal capabilities. The following list of priorities shall guide managers and operators when undertaking clearance of AIMs and IEDs in Afghanistan. They provide the overarching direction for the planning and execution of Improvised Mines activities in a mine action context:

- Preservation of life;
- Preservation of infrastructure and property;
- Return the situation to normal as quickly as possible;
- Gathering technical information to inform threat assessment and clearance plans.

7. General principle

Mine action organizations in Afghanistan which have identified a need for clearance of AIMs as part of their intended operations **shall** establish and maintain a capability to conduct these activities in a safe and effective manner. This involves a formal risk assessment of the hazards and the development of a safe and effective disposal capability. Such a capability shall include the preparation of appropriate procedures for the destruction and neutralization of AIMs, and other IEDs if applicable, the use of well trained and qualified personnel, and the use of effective and safe equipment, stores and supplies.

The establishment and preservation of a safe and effective clearance capability will require varying levels of expertise. AIM clearance personnel are only authorized to deal with those items and situations for which they have been trained and are qualified.

During the development of national standards, SOPs, clearance plans and render safe procedures (RSPs), the following eight IEDD principles should be observed:

- **Manual neutralization techniques**. Manual neutralizations techniques should not be conducted. Remote (if available) and semi-remote actions should be conducted to neutralize and/or dispose AIMs and IEDs;
- **Destruction in-situ**. When feasible destruction in-situ, using an explosive donor charge targeting the main charge(s) of the AIM or IED is the preferred method of disposal[1];
- **Neutralization**. Water-based energetic disruption of the power source(s) is the preferred means of neutralization[2];
- **One-person risk**. Manual approaches should be conducted as a one-person risk[3]; Time spent inside the explosive danger area should be minimized and a robust plan should be developed and briefed before leaving the control point;
- **Safe waiting (soak) times**. Appropriate safe waiting times should be applied after a positive action is conducted[4];
- **Personal Protective Equipment (PPE) on all approaches**. Appropriate[5] PPE should be worn on all manual approaches to a suspect AIM or IED.
- **Cordon and Evacuation**. Appropriate cordon and evacuation should be in place before conducting any positive action[6];
- **Component handling**. All AIM and IED components should be moved remotely or semi-remotely prior to any manual handling.

8. Types of Improvised Explosive Device encountered in Afghanistan

- Victim Operated IED (VOIED, including Improvised Mines and Abandoned Improvised Mines)
- Timed IED
- Command Operated IED[7]

9. Threat assessment

AIM clearance operations requires maintaining situational awareness by conducting regular threat assessments of AIM design and use in the areas of current operations. The threat assessments will inform the necessary risk mitigation measures associated with AIM survey and clearance operations and competency standards required, permitting operators to operate in such environments safely, effectively and efficiently.

Prior start of any physical intervention in a contaminated area as much information as possible about the nature and type of device should be collected for subsequent clearance operations.

The information to be collected shall cover the type and background of contamination, security situation in the area, active armed groups in the areas, informants and community perspective and their support of mine action operations.

[1] Damage to critical infrastructure and access to energetics will influence when demolition in-situ can be conducted.
[2] If this is not possible then remote and semi-remote component separation should be conducted.
[3] It may be appropriate for additional logistical support to be provided while RSP is being set up. However, only one person should be within a defined distance from the suspected or confirmed IED.
[4] As a minimum 10 minutes should be applied after a positive action is conducted prior to making another manual approach.
[5] National authorities and MA Operators should conduct a Risk Assessment based on the explosive threat and operational activities to determine appropriate PPE requirements for IEDD.
[6] Determining the exact Net Explosive Quantity (NEQ) and fragmentation hazard from an IED is unlikely to be possible before conducting positive actions.
[7] MA organizations **shall not** carry out targeted clearance of timed or command operated devices. In case such abandoned devices encountered during operations, then DMAC shall be consulted for approval.

The impacted communities and witnesses of contamination can be:

- Local security force personnel;
- Former or current combatants;
- Civilians living and working in proximity to the site;
- Local government officials;
- Landowners,
- Victims

During the information collection process, the questioning should not be leading, but have to be designed in such a way to facilitate an open forum for witnesses to divulge information. Wherever possible there is a requirement to establish:

- 'Who' – was being targeted by the device?
- 'Who' – placed the device?
- 'What' – components have been used in the device?
- 'What' – tactics were used by combatants during the time of emplacement?
- 'Where' – are the device components located?
- 'When' – was the device emplaced?
- 'Why' – was the device emplaced?
- 'How' – were the device components configured?

While it is not appropriate to provide a script of template questions it can be useful to consider structuring questioning around the means of initiation. It is essential to consider the conditions in which the device was originally emplaced as these may have changed considerably in the intervening time period.

10. Clearance of Abandoned Improvised Mines

The clearance of AIMs refers to tasks or actions to ensure the destruction of all hazards from a specified area to an agreed standard.

Clearance of AIMs as covered by this AMAS **should only** take place in rural or semi-rural environment and **should only** apply to the clearance of AIMs. MA organizations **shall not** carry out targeted clearance of timed or command operated devices without explicit approval from DMAC.

Improvised mines can be initiated by the actions of an unsuspecting individual or vehicle. These victim operated devices rely on the victim to carry out an action which causes the device to function. Due to the improvised construction and unknown effects of degradation on improvised mines and AIMs in Afghanistan, all victim operated IEDs are assumed to be sensitive to initiation by people moving around on foot.

In Afghanistan, improvised mines can be complex and are composed of a minimum of one of each of the following components:

- Container
- Main charge
- Power source
- Initiator/detonator
- Switch

These devices may incorporate multiple of the same component type, and in Afghanistan, improvised mines commonly incorporate designs specifically to avoid detection by metal detectors (such as the use of carbon rods).

Devices that incorporate the following components are considered to be uncommon in Afghanistan but require technical skills that may fall outside the scope of humanitarian AIM clearance operators, and require explicit approval from DMAC before any clearance or EOD action may be taken:

- Passive Infra-Red (PIR) switches

- Solar switches / photocells
- Other more advanced electronic components

MA organizations involved in AIM clearance operations **shall** prepare detailed SOPs for the effective and safe disposal of the AIMs as they are known to occur in Afghanistan, as described in **Annex 2, Part 1**. Mine action organizations involved in AIM clearance operations **may** prepare detailed SOPs for the effective and safe disposal of the AIMs as they are known to occur in Afghanistan, as described in **Annex 2, Part 2**.

These procedures **shall** include:

- levels of authority for clearance personnel in accordance with this AMAS
- procedures for task planning AIM clearance operations
- procedure for community liaison and access negotiation
- procedures for the detection and excavation of AIMs.
- procedures for the disposal of single AIMs.
- procedures for the disposal of AIMs handed in by the local community
- procedures for the disposal of other types of Improvised Mines
- procedures for the establishment of protective works

Minimum clearance standards

Land **shall** be accepted as 'cleared' when the clearance organization has ensured the removal and/or destruction of all AIMs from the specified area to the requirements specified in the clearance plan and agreed with DMAC. Procedures for clearance **shall** include systems that accurately record by marking, measurement and the use of scaled drawings, areas that have been cleared and the depth and types of clearance carried out. The specified area to be cleared **shall** be determined by a non-technical and, if necessary, technical survey, (NTS and TS, respectively) or from other reliable information which establishes the extent of the hazardous area.

The specified depth of clearance shall be determined following thorough survey and risk assessment, or from other reliable information that establishes the anticipated depth or height of the AIMs.

When there is no reliable information on the depth of the expected devices, the default depth for manual clearance operations **shall be 130 mm**. Where reliable information can be ascertained, the minimum manual clearance depth should be measured from the surface of the ground to the bottom of the switch (or top of the switch where the device is elevated above the ground). This clearance depth should be approved by DMAC before clearance operations start.

Where there is no reliable information on the depth of the victim operate mine the default depth for mechanical clearance operations **shall be 700mm**. Where reliable information can be ascertained, the minimum mechanical clearance depth should be measured from the surface of the ground to the bottom of the main charge. This clearance depth should be approved by DMAC before clearance operations start.

11. Mandatory actions for Improvised Mine clearance in Afghanistan

The following mandatory actions are applicable:

- In the event that IEDs other than AIMs are identified, all operations **shall** be suspended immediately, and the case **shall** be reported through the team supervisor/field officer to DMAC relevant regional office.
- If it was suspected that new IEDs of any kind have been emplaced since survey was conducted or clearance commenced, then all operations **shall** be suspended immediately. Work may only resume once it has been ascertained that the MA organization is not being deliberately targeted;

- Prior to the disposal of a~~n~~ device identified during clearance operations, a proper pre-disposal plan **shall** be made so the device can be disposed in a way to ensure safety of the personnel.
- MA organizations should maintain effective communications throughout clearance operations. Individual operators or teams must be able to seek advice and/or approval when deviating from the approved clearance plan, principles or mandatory actions. This includes:
    - A written clearance plan is to be produced prior to commencing operations at a task site.
    - No disposal of timed or command-operated devices is to be conducted unless authorised by the authority. If authorized, a written disposal plan is to be produced.
    - No clearance of buildings is to be conducted unless authorised by the authority.

In addition, the MA operator will refer to the national authority if:

- If a device other than an AIM is identified during clearance.
- If they identify a device that is beyond their operational clearance capability.
- A new device construction type is identified during clearance.
- If the functioning of an identified device during disposal activities could cause damage to property or infrastructure.

12. Clearance Plan and Operational Risk Assessment

Processes for AIM clearance and EOD operations should be decided based the assessed risk before each task is started, and as appropriate to each individual task. This risk assessment should take into account the assessed AIM design and employment, environmental factors such as ground hardness, proximity to structures and infrastructure, and the disposition of the local communities. These factors should be weighed evenly and in accordance with the guiding philosophies stated earlier in this standard, and a list of allowed processes and techniques should be created for the task and detailed in the task clearance plan. These allowed processes should include appropriate safety distances, authorized EOD techniques, and the conditions around the use of protective works. Safety distances should be appropriate to the assessed risk; the minimum safety distance is 100m.

Throughout operations, this risk assessment process should be applied to both clearance and EOD procedures, and should be recorded at all times in the appropriate task book for internal and external review. If the level of risk is assessed to be too high, or authorization to change the process is required, a higher level of management should be consulted. If in doubt, operations should be halted and the risk should be referred to DMAC.

13. Neutralization standards

Neutralization procedures **shall** only be carried out by personnel with the appropriate qualification. Before neutralizing the device, its state of safety must be positively identified.

The qualified personnel **shal**l only carry out neutralization procedures as detailed in the accredited SOP's. The use of improvised neutralization techniques are prohibited unless approved by DMAC.

When neutralization techniques are used, the safety distance requirements should be assessed through the operational risk assessment process described above. An appropriate safety distance should be detailed in the approved clearance plan and operational risk assessment for each task. Safety distances should be appropriate to the assessed risk; the minimum safety distance is 100m.

14. Qualifications and competencies

Training and qualifications should be appropriate to the AIM threat encountered in Afghanistan. The training and qualifications of personnel carrying out AIM clearance activities shall satisfy the following requirements and **shall** complement the requirements as set in AMAS 04.01 "Training and qualifications";

- **Basic AIM operator**: This initial level enables the trained holder of the qualification to conduct activities as described below. The prerequisites for basic operators are IMAS EOD level 1 and the mandatory completion of an additional AIM basic operator course.

- The basic operator shall be able to detect and locate AIMs (under the supervision of his TL), and on which the individual has been trained.
- Maintenance, preparation and deployment of equipment and explosives in use with the team
- Refer to the TL upon detecting or locating an item of that they are not familiar with.

- **Intermediate AIM operator**: This level enables the trained holder of the qualification to conduct activities as described below. The prerequisites for intermediate operators are IMAS EOD level 2, to be an accredited basic operator and the mandatory completion of an additional intermediate AIM operator course.

    - The intermediate operator shall be able detect, locate and destroy AIMs in situ (under the supervision of their TL), and on which the individual has been trained.
    - Refer to the TL upon detecting or locating an item of that they are not familiar with.

- **Advanced AIM operator**: This level enables the trained holder of the qualification to conduct activities as below. The prerequisites for an advanced operator are IMAS EOD level 3, to be an accredited intermediate operator and the mandatory completion of an additional advanced course appropriate for managing AIM clearance operations.

    - In addition to the competencies listed for an intermediate operator the advanced operator **shall** be able to plan and manage AIM clearance operations
    - If the individual has been trained on IEDs other than AIMs, they **shall** be authorized by DMAC to conduct their disposal.

DMAC will only accept qualifications from approved and accredited training programs.

The mine action organizations employing AIM qualified personnel **shall** provide DMAC with a list of all operational personnel detailing the EOD levels and AIM training for each person, course detail and dates when the qualification was obtained.

For international qualified staff the organizations shall provide curriculum vitas detailing formal training and experience with in annex copies of the certificates of the qualifications obtained.

This information is mandatory as part of the accreditation process but also for any new staff joining an accredited organization. More information can be found in the AMAS 03.01 'Quality Management'

Annex 1 to this AMAS details the levels of authority for AIM clearance.

15. Team structure

In order to conduct safe AIM operations, the team (support excluded) **should** as a minimum be comprised of four persons, consisting of the following:

- Team Leader (TL) - Advanced AIM qualified
- Deputy Team Leader (DTL) - Intermediate AIM qualified
- 2 x Operators – Basic AIM qualified

A team will be certified to undertake the following roles:

- Rural AIM clearance
- Building AIM clearance
- EO and AIM awareness delivery and support to risk education
- Information management

16. Equipment requirements

Clearance organisation shall equip their teams with detectors (or combination of detectors) suitable for the detection of the types of AIMs found in Afghanistan. Detectors **shall** be approved by DMAC

Clearance operators are to be provided with sufficient equipment of suitable quality to enable them to carry out AIM clearance and EOD techniques safely and efficiently.

17. Roles and responsibilities

- ***Directorate of Mine Action Coordination (DMAC)***

The DMAC shall:

a) Establish, revise and update the national standards for AIM and IED clearance operations;
b) Accredit MA organizations as fit to undertake AIM and IED clearance operations;
c) Review and accredit the demining organizations AIM and IED SOPs
d) Conduct regular QA and QC of AIM and IED clearance operations;
e) Review and approve the AIM and IED training packages of clearance organizations
f) Approve appropriate AIM and IED detectors and other specialist equipment;
g) Approve clearance plans for all AIM and IED tasks and approve AIM and IED EOD plans where required;
h) Monitor the effectiveness, safety and measures to protect the environment of MA organizations involved in AIM and IED clearance operations;
i) Lead the board of inquiry in case of an incident involving clearance organization staff during AIM or IED operations and accidents after clearance has been conducted.

- ***Clearance organizations***

Clearance organizations undertaking AIM clearance **shall:**

a) Get accreditation for DMAC to conduct AIM and IED clearance operations;
b) Develop SOPs for AIM and IED clearance operations in light of this AMAS. These SOP **shall** be approved by DMAC prior any operations.
c) Develop AIM training package for training of their staff involved in these operations
d) At all times adhere to AIM policy developed by DMAC which aims to manage AIM problem in strategic level, oversee and coordinate AIM threat mitigation activities and operations within the humanitarian context in Afghanistan.
e) Train and deploy competent and qualified personnel for clearance of AIMs
f) Maintain close liaison with communities
g) Make sure to get written consent from the local authorities and may get written consent from other key local stakeholders through engagement with the local councils that the AIM contaminated areas is abandoned and they agree on conduct of clearance operations
h) Apply the related SOPs for AIM and IED operations in a consistent, effective and safe manner which include procedures to protect the environment
i) Establish internal QA and QC mechanism to make sure the AIM and IED clearance operations is conducted safely, effectively and efficiently; and
j) Adhere to the need to share principle and regularly keep update DMAC about the findings and progress of AIM and IED operations

Level of authority for AIM Operations

SER	DESCRIPTION	Basic operator	Intermediate operator	Advanced operator
1.	**EOD L1 CERTIFICATION**	**YES**	**YES**	**YES**
3.	**EOD L2 CERTIFICATION**	**NO**	**YES**	**YES**
3.	**EOD L3 CERTIFICATION**	**NO**	**NO**	**YES**
4.	Completed a basic AIM operator course.	**YES**	**YES**	**YES**
5.	Completed an intermediate AIM operator course.	**NO**	**YES**	**YES**
6.	Completed an advanced AIM operator course.	**NO**	**NO**	**YES**
7.	Detect, locate AIMs, on which the individual has been trained	**YES**	**YES**	**YES**
8.	Detect, locate and destroy in situ AIMs on which the individual has been trained	**NO**	**YES**	**YES**
9.	Destroy in situ IEDs other than AIMs, on which the individual has been trained	**NO**	**NO**	***YES****
10.	AIM task management, plan development and execution	**NO**	**YES**	**YES**
11.	Management of multiple AIM tasks, plan development and execution	**NO**	**NO**	**YES**
12.	Conduct remote, semi-remote render safe procedure on AIMs	**NO**	**NO**	**YES**
13.	Maintenance, preparation and deployment of equipment and explosives in use	**YES**	**YES**	**YES**
14.	Assist the other team members in all phases of the task as required in line with safe, effective and efficient practices;	**YES**	**YES**	**YES**
15.	Refer to the on-site supervisor upon detecting or locating an item that they are not familiar with	**YES**	**YES**	**YES**

*Approval shall be obtained from DMAC prior any action IED other than AIMs.

Note: Clearance organizations may impose greater restrictions on the authority levels of their staff.

SOP Considerations for AIM Clearance

Part 1: Minimum Requirements for AIM SOPs

Mine action operators who intend to conduct AIM operations **shall** include provision for the clearance of IEDs with designs and considerations below in their SOPs. This **shall** include the ability to detect and destroy devices in situ in unenclosed spaces (outside of buildings).

Devices with components in the following configurations:
- Stacked
- Distributed
- Co-located

Devices with components in the following locations:
- Sub-surface
- Surface
- Elevated (to a minimum of 2m from the ground)

Devices with the following components:
- Pressure plate (High Metal Content)
- Pressure plate (Carbon Rod)[8]
- Pressure plate (Bare Wire)[9]
- Homemade explosive main charges
- Military ordnance main charges

Devices with the following secondary or anti-handling switches:
- Pressure Release
- Victim Pull
- Tilt
- Tension Release
- Timed

Devices with the following complications:
- Multiple MCs
- Multiple switches
- Multiple power sources
- Devices with unknown configurations
- Devices with unknown components
- Damaged or degraded devices
- Incomplete devices
- Secondary devices or with other devices in close proximity
- Complete or partial devices or components that have not been emplaced, including components handed in by the local community
- Devices in areas which may also contain anti-personnel landmines, anti-tank/anti-vehicle landmines, and/or UXO[10]

Part 2: Additional Considerations for AIM SOPs

Mine action operators who intend to conduct AIM or IED clearance operations **may** include provision for the clearance of IEDs with the following designs and considerations below in their SOPs. This **may** include the ability to detect and destroy devices in unenclosed and/or enclosed spaces (inside buildings) and **may** include the ability to destroy components through non-explosive and low order techniques and/or ability to conduct component separation and movement of components from their found location.

[8] All pressure plate (carbon rod) switches are assumed to be undetectable by metal-only detectors.
[9] Pressure plate (bare wire) switches are assumed to be difficult to detect by metal-only detectors.
[10] AP and AT/AV landmines and UXO should be cleared to the same standard required during clearance of these hazards if IEDs/AIMs were not present.

Devices with the following switches:
- Tripwire / Victim Pull
- Command Wire
- Command Pull
- Remote Control
- Timed

Devices with components in the following locations:
- Enclosed spaces
- Elevated above 2m
- Caches

Devices with the following complications:
- Complex design configurations
- Complex components (PIRs, solar switches, etc.)
- Devices intended as booby-traps targeting people through the movement of mundane objects
- Devices intended to destroy property