

# Weapons and equipment

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Equipment selected should be appropriate for the purpose for which it is issued.

Operational requirements (ORs) have been prepared by the National Police Chiefs' Council (NPCC) in respect of:

- firearms
- ammunition
- specialist munitions
- less lethal weapons

These items must have been evaluated against the national OR where one exists and otherwise against a local OR. With the exception of associated equipment, any evaluation must comply with the [Code of Practice on Armed Policing and the Police use of Less Lethal Weapons 2020](#) (the Code).

There is also a range of associated operational equipment (for example, tactical vest, body armour, holsters) for which an operational requirement may have been prepared by the NPCC or an individual force and are not subject to the Code requirements.

## Introduction

Officers and police staff should, as far as is practical and appropriate to their roles, be provided with information on the nature of the equipment and its function (including its capabilities), limitations and risk factors associated with its use.

Article 2 of the [United Nations Basic Principles](#) places an obligation on governments and law enforcement agencies to develop 'non-lethal' incapacitating weapons for use in appropriate situations, with a view to increasingly restraining the application of means capable of causing death

or injury to persons.

For the same purpose, it should also be possible for law enforcement officials to be equipped with self-defence equipment in order to decrease the need to use weapons of any kind.

Self-defence equipment includes:

- shields
- helmets
- bulletproof vests
- bulletproof means of transportation

Terms such as 'bullet resistant', 'ballistically protected' and 'body armour' are used in favour of terms like bulletproof to recognise that the degree of protection offered depends on the type of weapon and ammunition used and the nature of the attack.

## Weapon selection

Forces must be able to show an audit trail for the procurement of any firearms, less lethal weapons and specialist munitions they purchase.

The Code states that chief officers are responsible for the selection and acquisition of firearms and ammunition. The selection of weapons and ammunition must be based on the operational requirement identified by the threat and risk assessment process.

The Code provides guidance on a weapon evaluation procedure to support forces in selecting appropriate firearms, less lethal weapons and specialist munitions. Further advice can be provided by NPCC, Defence Science and Technology Laboratory (Dstl) and the College of Policing.

Within this guidance any reference to Dstl will include predecessor organisations where appropriate (ie, PSDB, HOSDB, CAST).

For further information see [Code of Practice on Armed Policing and Police use of Less Lethal Weapons 2020](#).

## Operational requirement

Chief officers are required to assess the capability and capacity required by their force to respond effectively to identified armed policing-related threats and risks. These assessments should be used to determine:

- what types of weapons need to be available within their forces, either from each force's own resources or by agreement with one or more other forces
- the numbers of officers in their forces required to be trained in the use of such weapons and in providing tactical advice in the use of such weapons, and the numbers and ranks of officers to be trained to command incidents involving such weapons
- arrangements for the deployment within their forces of weapons and personnel trained to use them.

The selection of weapons and specialist munitions must be based on a needs analysis, an operational requirement and evaluation in accordance with the Code. Due regard should also be given to the training implications, including the availability of suitable live-fire training facilities for the calibre of ammunition, and the relevant legislation and guidance related to personal protective equipment.

## Types of weapon

Weapon types used by the police service include:

- handguns (self-loading pistols)
- carbines and tactical rifles
- precision rifles fitted with telescopic sights
- conducted energy devices (Taser), 37 mm attenuating energy projectile (AEP) launchers, L104A2 with L18A2 optic sight
- shotguns (pump-action or self-loading) with appropriate sighting system to enable specialist munitions to be used (for example, irritant, tyre deflation and breaching rounds)

## Ammunition

Dstl has published advice and recommendations in respect of police ammunition. Only ammunition subject to strict factory quality control should be issued for operational purposes. All ammunition purchased should be accompanied by a proof house pressure certificate giving details of its mean service pressure. This must be consistent with that of the weapon used – any difficulties should be

referred to Dstl. Batch pressure tests should be carried out periodically where forces reload their own training ammunition.

Suitable provision should be made to facilitate the safe carriage of issued ammunition. This may include the use of magazines, magazine pouches and similar devices for other ammunition types.

All operationally carried ammunition should be regularly examined – rounds which show any sign of wear or damage should be disposed of in accordance with NPCC/Dstl advice.

## **Ammunition configuration**

Details in respect of ammunition configuration are contained within Dstl publications. Bullet configuration is designed to address issues associated with the penetrative qualities of the ammunition as well as minimising the potential of ricochet and over penetration.

For any ammunition to be used operationally by the police it must have been assessed against the documented operational requirement and must have:

- been evaluated by Dstl in respect of its characteristics and ability to meet the defined operational requirement, or
- identical or superior characteristics to ammunition which has been evaluated and recommended by Dstl or other Home Office approved body

Forces that have identified a need to be able to deal with large animals should hold weapons and ammunition calibres appropriate to the task. Such weapons, and the associated ammunition calibres, should be evaluated in accordance with the Code requirements.

## **Training munitions**

When munitions are used in training and are designed to either produce a noise or fire a projectile which only has a training application (for example, blanks, or marker rounds), care must be taken that Dstl guidelines (where applicable) and all other appropriate safety precautions are followed.

All munitions are hazardous and must be used in accordance with the manufacturer's guidance, or advice provided by Dstl where applicable.

## **Safety precautions**

Minimum engagement distances and safety precautions should be observed when using blank ammunition. Stringent precautions need to be followed to ensure that conventional ammunition does not become mixed with training munitions, such as blank or marker rounds. Similar provisions must apply to drill rounds used in weapon handling classes, which must be stored and used away from any round capable of being discharged, including blank rounds.

For further information see:

- HOSDB (1997) A Guide to Ear Defenders for Firearms Training 15/97 [RESTRICTED]
- HOSDB (1992) Noise Levels and Hearing Protection for Blank Ammunition 21/92 (available to authorised members of the police service on request, see [Dstl](#))

## Acquisition of less lethal weapons

In accordance with the Code of Practice, the police service should maintain the capability to centrally assess, evaluate and, where appropriate, adopt effective less lethal weapon systems where they might reduce reliance on conventional firearms or ammunition, without compromising the safety of police officers or others who might be affected. This is coordinated on behalf of the police service by the NPCC.

The [Code of Practice](#) requires that where NPCC regard new weapon systems as suitable for further evaluation and testing they should consult the Secretary of State. Research and evaluation of less lethal weapons, and their introduction into operational police use is coordinated by the NPCC armed policing portfolio lead and the Home Office.

New less lethal weapon systems and significant changes to pre-approved less lethal weapons systems will require approval by the Home Office before they can be used by police forces in England and Wales. This approval process is required because of the unique risks and societal implications that apply to use of less lethal weapons, including the careful balance that needs to be struck between them being as effective as possible while also minimising risk of serious or permanent injury or death. All significant changes to less lethal weapons systems must be referred to the national policing lead and the Home Office for consideration.

Where approval is required by the Home Office, the Home Office will determine on a case by case basis whether the decision is made by the Secretary of State for the Home Department or a delegated Home Office authority as appropriate.

Having been evaluated and approved, less lethal weapons must only be issued for operational use to those that are appropriately trained and accredited.

As part of the approval, evaluation and assessment process for such weapons the following must be considered, and will include, where appropriate:

- a needs analysis
- determination of operational requirement
- independent (of the manufacturer) technical and medical assessment (to include capability, limitations effect and lethality)
- operational performance trials

The approval process will take into account relevant strategic, ethical, operational and societal issues.

## Storage

Chief officers must ensure that all firearms and munitions are stored in secure armoury facilities. This includes operational and training weapons and munitions, and those carried in armed response and other vehicles.

The term munitions includes ammunition, specialist munitions, pyrotechnics and explosive-based material. The storage method and conditions must comply with recommended security, storage and health and safety standards. Advice on relevant standards can be obtained from Dstl.

Weapons and ammunition should be physically separated within the armoury.

For further information see:

- [Taser storage](#)
- [AEP storage](#)

## Storing weapons

The method of retaining weapons within the armoury should include purpose-built racking or a storage system suitable for storing both weapons and magazines.

The system adopted should:

- prevent weapons from falling or being damaged
- facilitate ready accounting of weapons

Weapons organisation in an armoury should segregate operational and training weapons, and weapons stored for other reasons.

## Storing ammunition

The term ammunition includes all operational, training and blank ammunition of all types. The storage arrangements and procedures used in the armoury should be designed to prevent blank, drill purpose and all forms of inert munitions becoming mixed with other ammunition.

Procedures for accepting or returning munitions to stock should be established and documented.

Ammunition stocks should be arranged separately according to calibre and type, to facilitate accountancy procedures.

## Storage of explosive articles and substances

Guidance on storing explosive articles and substances for use by police units is set out in the following Dstl guidance notes.

- Storage of ammunition and explosives in police facilities. March 2017 (CAST publication 139/16).

Titles available to authorised members of the police service on request, see [Dstl](#).

## Administration and record keeping

The system of accounting for weapons and munitions (including Taser) must provide an audit trail for the movement of weapons, and of the issue and use of munitions. An inventory must be kept of all weapons and equipment held in the armoury, including serial numbers. Where weapons are allocated easily-read reference numbers, these should be cross-referenced to the original serial number.

An audit trail should be maintained in respect of each weapon. This must include a record of all withdrawals from the armoury for training or operational purposes. All weapons inspections and

repairs must be recorded. Any design faults or recurring problems with either weapons or ammunition must be reported to Dstl using the Weapons Failure Form.

Where it is necessary to store training and operational ammunition in the same armoury, they should be accounted for separately. Ammunition records should be capable of being cross-referenced with range records showing details of range expenditure.

## Weapons maintenance

An effective maintenance programme must be in place to ensure that weapons and ammunition used by police officers are in a serviceable condition. This is normally the responsibility of a force armourer or weapons maintainer accredited in accordance with the common national standard. Chief officers should ensure that such staff have the appropriate qualifications and skills, and take into account any recommendations concerning re-qualification.

Forces must have auditable records in relation to the maintenance and inspection of firearms and ammunition. This should be documented in a standard operating procedure (SOP) that includes:

- regular routine maintenance and inspection regimes by a competent person. This can ordinarily take place in tandem with routine downloading (see data auditing)
- quarantining and labelling of firearms and ammunition that is:
  - faulty or suspected to be faulty (including those identified during routine testing by users)
  - damaged
  - subject to significant physical impact (for example, dropped or involved in a road traffic collision)
  - have been immersed in water/liquid contaminated with bodily fluids or other biohazards
- inspection, testing and repair of firearms by a competent person
- destruction, withdrawal, replacement under warranty, or confinement to non-operational use of weapons that are unserviceable

## Destruction of surplus firearms

As one of the control measures designed to ensure that firearms do not pass into illegal use, it is NPCC policy that all firearms owned by the police service should be destroyed when they are deemed to be surplus to the requirements of the police service. This includes Taser cartridges,

given Taser's status as a section 5 prohibited weapon, and section 1 ammunition.

Exceptions to this policy are:

- surplus firearms being sold, or otherwise disposed of, to other forces
- firearms which are retained for instructional purposes, or as a historical record

Where these exceptions do not apply, surplus firearms should be destroyed in the same manner as illegal firearms that come into the possession of the police service. Before disposing of a firearm, chief officers should ensure that there are no criminal, civil or judicial proceedings which a weapon may be required for.

## Equipment

A clear audit trail for the use, maintenance and servicing of all tactical equipment should be identified in the risk assessment process adopted by each force.

## Holsters

Holsters used by the police service should be suitable for the task and the environment in which the weapon is being used.

The holster should:

- provide protection for the weapon
- provide security for the weapon
- enable the wearer to easily access the weapon

## Optical sights and observation equipment

Sighting systems and accessories which aid observation, identification and shooting accuracy in a range of lighting conditions should be available to officers.

Accessories fitted to weapons can alter the balance and functioning of the weapon system. These should be fitted only after thorough evaluation of the complete system in the configuration intended to be used operationally.

Dstl has produced a document that will help forces choose an appropriate sighting system: HOSDB (2001) Optical sights for use with Police Firearms 06/01. (Available to authorised members of the police service on request, see [Dstl](#).)

## Forcible entry equipment

The main categories of entry and door breaching equipment include:

- kinetic devices
- hydraulic equipment
- cutting equipment
- shotgun breaching rounds
- explosive breaching rounds

There are specific hazards associated with each of these types of equipment. Officers must be fully trained in the use of any forcible entry equipment that they use, and risk assessments must be undertaken in respect of the use of these specific methods.

Officers deployed when forcible entry equipment is to be used operationally must be briefed on the potential consequences and effects. Commanders authorising the use of forcible entry equipment (also referred to as method of entry (MOE) equipment) need to be fully aware of the implications associated with its use.

## Respirators

Respirators must be capable of providing an appropriate level of protection in the environment that they are to be used. Authorised firearms officers (AFOs) who are issued with respirators must be trained in the correct use of the equipment.

It should not be assumed that respirators, and the filters with which they are fitted, will protect against all, or a range of environments. Suitability for the purpose must be assessed and understood prior to operational use, (for example, CS irritants, smoke filled or oxygen depleted environments).

Officers may be equipped to operate within CBRN (chemical, biological, radiological and nuclear) environments, and may have been issued with equipment suitable for this purpose.

Advice for operations where police officers require respiratory protection against CS can be found in:

- HOSDB (2004) Evaluation of Respirators for Specialist Police Firearms Operations 92/04 [RESTRICTED] (available to authorised members of the police service on request, see [Dstl](#))

## Vehicle stopping and immobilisation devices

There are several types of vehicle stopping devices designed to slow a vehicle and bring it to a halt in a controlled manner.

In appropriate situations, tyre deflation or shotgun breaching rounds can be used to rapidly deflate the tyres of a vehicle which has been brought under control, in a way which minimises risk. Officers should consider the potential for subjects to believe that conventional police firearms have been discharged, resulting in an escalation of the situation. This potential should be balanced against the risks associated with the vehicle being driven away.

Conventional ammunition should not be used to deflate tyres as it is unlikely to be effective and can ricochet, thereby presenting unacceptable risks. See also guidance on subjects in [moving vehicles](#).

## Body armour and ballistic protection

A quality framework process in respect of body armour standards has been developed by Dstl, NPCC, police staff associations and forces. These are set out in a series of Dstl publications on body armour.

Body armour and ballistic protection available to the police service includes protection against:

- knife and spike attack
- blunt trauma
- ballistic injuries

## Risk assessment

Forces must regularly review the threats, via their Armed Policing Strategic Firearms Threat and Risk Assessment, to which officers are being exposed. This includes changing trends in respect of

the types of incidents and operations to which officers are being deployed.

It is essential that officers' personal protective equipment (PPE) is matched to the risks they are likely to face and that risk assessments are role specific. Forces should consider whether they require a hybrid body armour that provides both ballistic and sharp edged weapon protection.

Chief officers should include within any risk assessment not only the weaponry likely to be used by subjects that officers may have to confront, but also the ballistic threat posed by the weapon that officers are being deployed with. The issues associated with body armour are particularly relevant to chief officers.

## **Dstl publications**

Dstl standards for ballistic body armour give a choice of different levels of protection, including protection against handgun, shotgun and rifle calibres.

### **Protection levels**

The specific protection levels are set out in Home Office publication (012/17) Body Armour Standard (2017).

Each of the ballistic protection levels set out in the HOSDB publications can be combined with stab protection levels to offer dual stab and ballistic protection, see: HOSDB (2007) Body Armour Standards for UK Police, Part 3: Knife and Spike Resistance 39-07-C.

Dstl recommends that body armour is checked at regular intervals to ensure that it is in a serviceable condition – forces should ensure that a procedure is in place to monitor, and replace where appropriate, body armour in accordance with Dstl and manufacturers guidance.

Where body armour has been subjected to a stab, ballistic or blunt trauma attack, Dstl advice in respect of replacing the armour should be followed.

Advice on the correct wearing of body armour and related equipment is contained in HOSDB (2006) Carriage of Police Equipment 10-06.

Other ballistic resistant equipment which may be provided includes portable blankets, shields or screens and ballistic helmets. The standard issue helmet for situations involving public disorder

does not offer any ballistic protection, see Home Office publication (47/11) Portable ballistic protection standards for UK police (2011).

All titles are available from [Dstl](#) on request by an authorised member of the police service.

## PPE regulations

Body armour falls within the definition of PPE for the purposes of the Personal Protective Equipment at Work Regulations 1992 and, therefore, carries legislative responsibilities with which chief officers are required to comply.

## Clothing

All clothing issued to AFOs should be appropriate for their role and provide suitable protection from the weather and any other risk-assessed hazards.

In situations where threat and risk assessment justifies visually protecting the identity of AFOs, balaclavas or face-overs can provide a degree of protection.

## Uniformed AFOs

AFOs deployed in uniform should be readily identifiable as police officers. Uniform headwear with clearly visible police markings, or ballistic helmets can assist in visually identifying AFOs as police officers.

Baseball or ski caps should normally be of a dark blue, black or dark green colour, commensurate with the uniform worn by the police.

Forces should determine the operational attire to be worn by uniformed AFOs when undertaking uniformed duties. This should normally include ballistic body armour and take account of threat and risk assessment in respect of threats to which officers might foreseeably be exposed.

## Non-uniformed AFOs

When non-uniformed officers are carrying firearms, consideration should be given to how they would be identified as police officers should they have to draw a firearm or become overtly armed.

The method of identification used will depend on the nature of the operation and role that an officer is performing, and may include the ready availability of dark blue, dark green or black headgear (for example, a ski cap). Headgear or clothing selected for this purpose must bear clear police markings and be readily available and suitable to be donned quickly at short notice. Where practicable in the operational circumstances consideration should be given to high visibility clothing or police marking.

Where these methods of identification are not available, or practicable in the circumstances, officers should consider producing a warrant card.

Whether in uniform or otherwise, an armed officer should always, where practicable in the circumstances, verbally identify themselves as an armed police officer.

## **Agreed markers**

Sometimes it is beneficial to use discreet, agreed markers which assist other officers in identifying AFOs. Where this is the case, a suitable system of identification should be defined, and all officers involved fully briefed and aware of it.

## **Ballistic protection**

Advice on ballistic protection for non-uniformed officers can be obtained from Dstl.

Where the nature of the duties performed makes wearing ballistic protection impractical, or potentially increases the risk to the wearer, a threat and risk assessment should be completed and the rationale for deploying officers without ballistic protection recorded. An example might be a covert deployment where the risks associated with compromise are potentially greater than those associated with not wearing body armour.

## **Non-uniformed unarmed officers**

Where non-uniformed, unarmed officers are working alongside armed officers, consideration should be given to how they could be identified in the event of them having an overt role.

Wearing a high visibility cap, vest, shirt or jacket with police markings may prove beneficial. Where these systems of identification are not available, officers should consider producing warrant cards and verbally identifying themselves as police officers.

A suitable system of identification should be defined, and all officers involved fully briefed and aware of it.

Ballistic protection is equally important to armed and unarmed officers in situations where firearms may be discharged, and consideration should be given to appropriate ballistic protection.

## Specialist munitions

Specialist munitions are defined in the Code as:

*devices or munitions used by law enforcement personnel for the purpose of gaining a tactical advantage. For example, distraction devices or breaching rounds, which are used to facilitate entry to a building.*

While not fired or propelled directly at an individual, certain specialist munitions may achieve their intended purpose through a direct physical effect on an individual(s). Where this is the case, they will also require appropriate medical evaluation and must be considered for approval by the Home Office.

Specialist munitions have the potential to cause injury and damage even when used correctly. Instructions on safe handling and detonation procedures must be carefully adhered to.

Forces should have standard operating procedures relating to the authorisation issue, deployment and use of specialist munitions. Those authorising the deployment of specialist munitions must ensure that such deployment has been appropriately risk assessed and that parameters for their use are clearly briefed.

The authority to deploy with specialist munitions will not necessarily include an authority to use them, and commanders and those using specialist munitions must continually review and risk assess the proportionality and necessity of their use.

## Pyrotechnics

The term pyrotechnics includes all substances, munitions, devices or other articles which, on their own or in combination with other equipment, are capable of producing an explosive or burning effect, whether designed to be ignited manually or electrically.

Pyrotechnics which produce a large range of visual, sound and smoke effects are commercially available. Various types of percussion (stun) grenades and barricade breaching munitions are also available, all of which can provide officers with a tactical advantage when operating in buildings or other physical structures.

## Safe use

Trained personnel should be responsible for all handling, setting up and firing of pyrotechnics. No other person should handle any pyrotechnic, wiring or initiation device except under the direct instruction of the designated responsible person.

Any use of pyrotechnics should be appropriately risk assessed and used only in accordance with manufacturer's instructions.

## Percussion grenades

Use of percussion grenades may create a risk of fire, blast and fragmentation. The noise created by these devices is in excess of the safe level under health and safety legislation, and care should be taken during operational use. The NPCC in conjunction with Dstl, has provided guidance on hearing protection while using percussion grenades in both operational and training environments.

The use of percussion grenades in training must be subject of statutory risk assessment. Suitable control measures must be adopted, which should include suitable hand, foot, hearing, eye, exposed skin and face protection.

The operational use of percussion grenades must also be subject of statutory risk assessment. It may also be necessary to undertake a dynamic risk assessment relevant to the operational circumstances and/or where it is not practicable to adopt all identified control measures (for example, items of PPE).

Only certain types of percussion grenades are suitable for use in operational situations. Forces should only use devices that have been recommended by Dstl.

Information on hearing protection in firearms training and operations can be obtained from the NPCC Armed Policing Secretariat.

## Smoke munitions

Pyrotechnic generated smoke can cause disorientation and suffocation.

Smoke-producing devices should not be used in confined spaces unless specifically intended for use in such environments. Even then, where possible, staff should not be exposed to concentrations of smoke unless wearing suitable respirators.

## CS munitions

CS-based munitions are the only approved chemical munitions for use in support of firearms operations. All CS munitions authorised for use by the police service (with the exception of incapacitant sprays) must be evaluated and approved in accordance with the Code.

CS is not a gas but a white crystalline solid. It can be delivered directly as a micronised powder or as a pyrotechnic mixture, where the particles of CS are carried in the smoke. It can also be dissolved in a suitable solvent which, when deployed, evaporates leaving a fine dispersion of CS particles.

## Effects

Used in appropriate quantities and in enclosed spaces, CS can reduce a person's offensive capability and the extent of their coordinated action. The effects can include pain and discomfort in the eyes, which causes excessive watering, involuntary spasm of the eyelids leading to blinking or closure of the eyes and sneezing, coughing, retching and a stinging or burning sensation on exposed skin.

## Aftercare

Tactical training in the use of CS should emphasise the precautions to be taken in relation to self-contamination, appropriate restraint techniques and aftercare of subjects.

There are a number of products sold on the open market claiming to be antidotes or neutralising agents. There are, however, no antidotes for CS and these products should not be used on people. In some cases their use can be harmful.

For information on aftercare for persons exposed to incapacitant sprays see the [national Personal Safety Manual](#) (available via College Learn, which is an OFFICIAL-SENSITIVE online tool with access limited to [registered](#) users).

## CS/PAVA aerosols

CS or PAVA aerosols are the irritant sprays evaluated and approved for use by the police service. They should be used only in accordance with guidelines contained in the [national Personal Safety Manual](#) (available via College Learn, which is a RESTRICTED online tool with access limited to [registered](#) users).

AFOs should be aware that contamination by their own or a colleague's CS or PAVA aerosol may seriously affect their ability to use a firearm effectively.

## Tags

Armed policing