



HM Government

# The UK's Nuclear Deterrent





# The threats we face today

The threat of nuclear conflict did not go away at the end of the Cold War. As the threats we face are increasing in scale, diversity, and complexity, we must maintain the capability to deter extreme acts of aggression against the UK and our NATO allies.

**While the UK has taken a leading approach to nuclear disarmament, not all states have followed. With some significantly increasing and diversifying their nuclear capabilities, we must ensure potential adversaries cannot use these to threaten us, constrain our decision-making in a crisis, or sponsor nuclear terrorism.**

**Deterrence means that any potential aggressors know that any benefits they may seek to gain by attacking the UK will be outweighed by the consequences for them.**



It may sometimes feel that these threats are far removed from our daily lives. However, a world where those that challenge the rules based order have nuclear weapons but the UK does not, is not a world in which you and your family are safer.

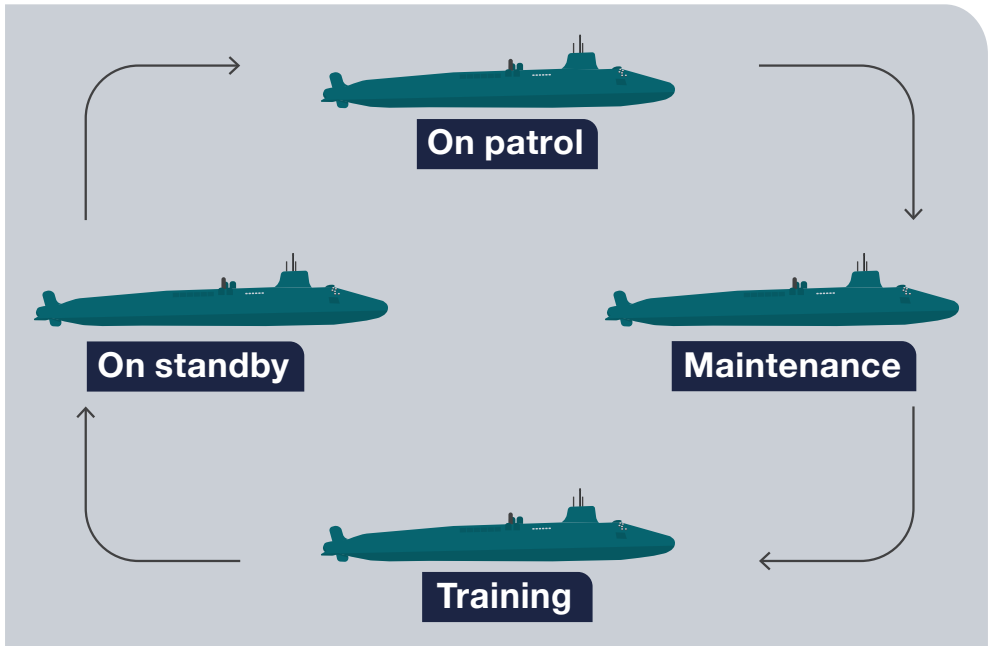


As long as nuclear weapons exist, NATO will remain a nuclear alliance. We stand ready to deter acts of aggression, and must maintain the capability to defend ourselves and our NATO allies against the most extreme threats to our national security.

# Continuous at Sea Deterrence (CASD)


Since April 1969, there has always been at least one UK nuclear-armed ballistic missile submarine undetected on patrol, protecting the UK and our NATO allies.

**Four Vanguard class nuclear armed submarines operate a carefully choreographed deterrence patrol cycle.**



## Each submarine:

 is 150m in length

 operates with the highest regard for the safety of the crew and public



can operate for decades without refueling



has a crew of over 100 people

# The UK's nuclear deterrence policy

CASD helps to preserve peace, prevent coercion and deter aggression. A minimum, credible, independent nuclear deterrent remains essential to guarantee our security.



The UK would consider using nuclear weapons only in extreme circumstances of self-defence, including the defence of NATO allies.



The UK's nuclear deterrent is operationally independent. Only the Prime Minister can authorise the use of our nuclear weapons, even if deployed as part of a NATO response.



We remain deliberately ambiguous about precisely when, how, and at what scale we would use our nuclear weapons so as to complicate the calculations of a potential aggressor.



We remain committed to maintaining only the minimum destructive power needed to guarantee that the UK's nuclear deterrent remains credible and effective against the full range of state nuclear threats.



The UK is committed to the long-term goal of a world without nuclear weapons, and continues to press for key steps towards multilateral disarmament.



The UK takes the security of its nuclear weapons and materials very seriously. We employ a range of measures to counter all conceivable threats and ensure we can respond to any incident, no matter how unlikely.

CASD wouldn't be possible without the men and women of our submarine service.



**For more than 50 years, thousands of submariners have kept the UK safe. Without their skill and dedication, operating the UK's nuclear deterrent would not be possible.**



The submarine service has been open to both men and women since 2014, who undergo extensive training to prepare for covert patrols which can last for months at a time.



Submariners place their duty to protect the UK above all else, missing out on many things we take for granted to help keep us safe. The crew don't know their location, and work out the day of the week by what's for dinner.





There is no internet access, and they can only receive a 120-word message each week from loved ones. For security reasons, they are unable to reply.



Under these unique circumstances, submariners and their families form strong bonds of friendship, becoming a close-knit community.

# The future of the UK nuclear deterrent

As the Vanguard class submarines near the end of their service life, the design and build of the next generation of deterrence submarines is well under way.



**All four Dreadnought class submarines are being designed and built in the UK.**



Our nuclear deterrent remains as necessary today as it has ever been, and Dreadnought will ensure the UK has a credible, independent and capable nuclear deterrent for as long as the global security situation makes it necessary.



The Dreadnought build programme is one of the UK's largest and most complex engineering programmes. Designing and maintaining such a sophisticated system is comparable to building a spacecraft.



The UK will be replacing its nuclear warhead and continues to invest in the Atomic Weapons Establishment (AWE) to ensure the safety, security and maintenance of our current and future stockpile.



We will work collaboratively across defence and civil nuclear sectors to optimise the Defence Nuclear Enterprise for the future.



# The deterrent and the UK economy

Tens of thousands of UK jobs are supported by maintaining our nuclear deterrent, with the benefits of this investment being felt in communities across the country.



HM Naval Base Clyde is one of the largest employment sites in Scotland, bringing positive economic benefits to the local area. Scotland is home to the UK's submarine service, as well as other Royal Navy vessels.



Submarine construction takes place at the BAE Systems shipyard in Barrow, where training and apprenticeships are also provided at the Submarine Academy.



Babcock supports and maintains in-service submarines at naval bases in Faslane and Plymouth.



Rolls-Royce designs and manufactures nuclear propulsion systems for our submarines at their site in Derby.



Our warhead programme supports more than a thousand jobs at AWE.



Our industry partners estimate that there are around 2,500 companies in their supply chains, supporting thousands of jobs across the whole of the UK.

# A world without nuclear weapons

The UK is fully committed to its obligations under the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), and has a strong record on nuclear disarmament.



The NPT has played an unparalleled role in minimising the spread of nuclear weapons. There is no credible alternative route to disarmament.



The UK takes its responsibilities as a nuclear weapon state seriously, championing nuclear risk reduction.



The UK is the only nuclear weapon state to have reduced to a single delivery system.



The UK and NATO do not support the Treaty on the Prohibition of Nuclear Weapons, as it risks undermining existing non-proliferation and disarmament architecture and will not enhance our security.



We continue to pursue the entry into force of the Comprehensive Test Ban Treaty and the commencement of negotiations on a Fissile Material Cut-Off Treaty in the Conference on Disarmament.



The UK is at the forefront of research on nuclear disarmament verification and participates in a variety of international initiatives needed to see a world free of nuclear weapons.

This booklet has been produced by the Defence Nuclear Organisation.

The Defence Nuclear Organisation manages the portfolio of nuclear programmes, including acting as the Departmental Sponsor for the Submarine Delivery Agency, advises on UK nuclear policy and planning, and on international cooperation on nuclear matters. It engages in scientific research, delivery of nuclear warheads, procurement of submarines, provision of specialised infrastructure, and disposal, as well as sustaining specialist skills, conducting assurance and maintaining emergency response arrangements.

