

Information on Trident and Aldermaston

Trident

Trident is Britain's nuclear weapon system. It consists of four nuclear-armed submarines, one of which is on operational patrol, under the seas, at all times. Each Trident submarine carries up to 48 nuclear warheads, each of which can be sent to a different target. Each warhead has an explosive power of up to 100 kilotons, the equivalent of 100,000 tons of conventional high explosive. This is 8 times the power of the atomic bomb that was dropped on Hiroshima in 1945, killing an estimated 140,000 people.

There are three parts to the system: the warheads - which are the explosive 'bombs', the missiles which carry them and the submarines which carry the missiles. The submarines are made in Britain at Barrow-in-Furness, refitted at Devonport, and maintained at Faslane, Scotland. The missiles are leased from the US. The warheads are made at the Atomic Weapons Establishment (AWE) Aldermaston and are stored at Faslane.

Britain has been nuclear armed since 1952, buying into the US nuclear weapons system Polaris from 1968 to 1996 and Trident from 1994.

By continuing to possess nuclear weapons, Britain is failing to comply with its obligations under the nuclear Non-Proliferation Treaty (NPT) which it signed in 1968 and which committed it to nuclear disarmament.

Aldermaston

AWE (Atomic Weapons Establishment) Aldermaston is roughly 70 miles north-west of London and is where the UK makes its nuclear weapons. It is where the warheads for the current Trident system were built and at nearby AWE Burghfield, the warheads are periodically refurbished, and then taken back to Faslane in Scotland. Now they have started work on the next generation of nuclear weapons. This is in breach of the Non-Proliferation Treaty and we need a massive European protest at Aldermaston to put pressure on the UK Government before the critical NPT Review Conference in May 2010 in New York.

Since 2002, AWE Aldermaston has been building new facilities to design, test and build the next generation of nuclear weapons. The development plans are on the same scale as Terminal 5 at Heathrow airport. Despite opposition from numerous peace and justice groups, lawyers and other nations nevertheless a new laser facility, which is able to recreate the conditions of a nuclear explosion, is nearing completion, and other buildings are planned or under construction. There are also new facilities being built at nearby Burghfield.

The UK's current warhead is based on a US design, and Trident missile bodies are leased from the US. Scientists at Aldermaston regularly take part in exchanges and experiments with their counterparts at nuclear facilities in the US, where there are also new research, development and building programmes. Joint sub-critical tests are carried out with the US at the Nevada Test Site. The US are developing a new Reliable Replacement Warhead (although funding has been recently stalled); Aldermaston is working on the same system, but here it is known as the High Surety Warhead. The estimated total cost of replacing the Trident fleet of nuclear powered submarines together with new missiles and warheads is estimated at between £25 and £76 billion.

- In 2002, AWE Aldermaston and Burghfield embarked on a massive building programme which will equip the UK government to design, test and build a new generation of nuclear warheads;
- Since 2002, AWE have built the new "Orion" laser and the Gemini office complex; a massive supercomputer, essential to the design of new warheads, has been installed. A new High Explosives Fabrication Facility and several other buildings are under currently construction;
- At AWE Burghfield work is underway on a new Warhead Assembly Facility and supporting buildings;
- Up to 1,500 new staff, including specialist warhead engineers, have been recruited;
- These developments started well before parliament voted in March 2007 to replace the current Trident system.
- Further planning applications for new buildings, including a new Uranium Enrichment Facility, are envisaged in the Site Development Strategy Plan;
- For a detailed chronology of construction and related events, see ...here;
- When Parliament voted in March 2007 to replace the current Trident system, they only agreed to new submarines and missiles. They did not vote to replace the warheads.
- Since 2007 the government have continued to claim that they have not yet made in a decision to replace the current warhead system, however continued building work at Aldermaston and other evidence suggests that this decision has already been made.

The Atomic Weapons Establishment (AWE) Aldermaston has been at the centre of Britain's nuclear weapons production since 1950. Then called the Atomic Weapons Research Establishment (AWRE), it replaced Fort Halstead where Britain's research on atomic weapons began in 1947. AWE Burghfield, where warheads are assembled, was opened at the same time.

The first British atomic bomb, the "Blue Danube", tested off Australia in June 1952, was built at Aldermaston. In 1955 work started on the first thermo-nuclear or hydrogen bombs which were tested in the Pacific, including at Christmas Island, in 1957.

These were the last "independent" nuclear weapons built at Aldermaston. From 1958 onwards, under the Mutual Defence Agreement, the UK and the US agreed to exchange information on "atomic weapon design, development, and fabrication capability".

Since 1958 all of the UK's nuclear weapons have been designed, tested and built (in collaboration with the US) at Aldermaston: the WE177, deployed on RAF and Royal Navy planes from 1966; the submarine-launched Polaris warhead, deployed from 1968, and the successor Chevaline warhead deployed from 1982. All of these warheads were tested at the US underground test site in Nevada, on the land of the Western Shoshone people.

The warheads for the current Trident system were built at Aldermaston, and they are refurbished at AWE Burghfield. Since 2002, the government has invested in building new facilities at AWE, and recruited new staff to test, design and build the next generation of nuclear warheads.

AWE Plc (the company), at the Aldermaston site, specifically, is currently responsible for the production, maintenance and (eventual) decommissioning of Britain's Trident warheads. It is also engaged in developing other areas of nuclear science: including laser technology and materials testing. AWE also retains the capacity for developing a new generation of nuclear weapons, should

the British government decide to upgrade/replace Trident at some point in the future (See the campaigns section for more on this).

Aldermaston is owned by the British government, specifically the Ministry of Defence, but since the early 1990s AWE has had "GOCO" status, that is Government Owned - Contractor Operated. This means that while the Ministry own the site, private companies manage day to day operations, and try to make a profit. This status also applies to AWE Burghfield - Aldermaston's sister site, located approximately seven miles away. At Burghfield, high explosives (necessary to detonation) are packed into the warheads (and also removed - for maintenance and in decommissioning). Burghfield is also an occasional home to the nuclear warhead convoy - "greens" (when it pops by to collect/deliver warheads for deployment/servicing). Formerly based at RAF Wittering, the green warhead convoys now have a permanent home at Aldermaston. The site is also home to Special Nuclear Materials convoy vehicles ("Blues"). These small trucks trundle around Britain with the MoD's "Special Escort Group", collecting/depositing nuclear materials. Their favourite destinations include: Sellafield (BNFL, Cumbria), Chapelcross (MoD reactor, Scottish borders) Harwell (AEATech, Oxfordshire) and Rolls Royce Nuclear (submarine nuclear reactor manufacturers, Derby).

For seven years, until April 2000, the AWEs were managed by the Hunting-BRAE consortium (Hunting Plc, Brown & Root and AEATech). However since Hunting-BRAE's contract expired on 31 March 2000 the government chose a new consortium to manage the site from 1 April 2000. This consortium is comprised of BNFL, Lockheed Martin and Serco. Most British activists probably know a thing or two about BNFL and Lockheed, while Serco may be less well known. Lockheed are one of the biggest weapons manufacturers in the world (responsible for the Trident missile bodies, the B2 stealth bomber, and manage several US nuclear installations such as Oak Ridge in Tennessee). Serco are a "facilities management" company who are the beneficiaries of many British PPP and PFI contracts, particularly in the field of private prisons, rail and hospitals. Around 30% of Serco's turnover comes from defence contracts. All three have websites where you can find out more information about their dodgy corporate goings-on.

In terms of waste, AWE Aldermaston is engaged in burning, burying, flushing and storing all grades of radioactive waste. BNFL's Drigg site and Southampton's Shanks incinerator have contracts with AWE, for burying and burning respectively, other waste is deposited into small brooks which flow from the site itself, and previously through the (now closed) Pangbourne pipeline, where it was deposited into the Thames.

Aldermaston has many unpleasant features, including "hot-spots" (from historic dumpings/accidents), chemical contamination of parts of the site and its environs, and a large store of radioactive waste on-site. Both sites do have dangerous areas, both intended and otherwise.

In 2002 AWE published a "Site Development Strategy Plan" in which they outlined a massive building programme for new facilities across the site. This, combined with the recruitment of new warhead specialists and additional government funding, lead AWPC to believe that the MoD were gearing up for a policy announcement on a replacement for Trident, something which, three years later, the government has confirmed it will do within the lifetime of the current parliament.

(This information was taken from the Aldermaston Womens' Peace Camp website).