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In the wilderness, a computer readies a new nuclear arsenal

BY TIM REID

On a rare tour of the US nuclear laboratory in Los Alamos, our correspondent is shown a project to replace warheads that many believe Britain is not only watching but is deeply involved in

DEEP in the heart of America's leading nuclear weapons complex sits a computer so large that it fills a room the size of a football field — a dazzling spectacle of blinking lights that churns out 20 trillion mathematical calculations a second.

Named "Q", after the gadget-inventing boffin in the James Bond films, it is the nerve centre of the Los Alamos Nuclear Laboratory, a 40,000 square mile (104,000 sq km) complex deep in the wilderness of New Mexico ringed with high-security fencing and armed guards.



Here a 67m (220ft) long electron accelerator X-rays exploding uranium at a billion frames per second. Here some of the world's most brilliant physicists operate gas guns, electron microscopes and neutron scatterers and pore over data like excited children. Here, six decades ago, the atom bomb was born when the secret Manhattan Project produced Little Boy and Fat Man, the bombs dropped on Hiroshima and Nagasaki. Today Los Alamos is focused on creating a new generation of nuclear warheads.

The Bush Administration this week revealed a plan for replacing America's ageing nuclear weapons stockpile, under which 125 new bombs a year would be made by 2022.

And although Tony Blair says that no decision has been made on whether to replace Britain's equally old Trident system, many suspect that Downing Street has already decided to buy into this new US weapons programme to create Britain's next-generation nuclear deterrent. Over the past five years the British Government has spent £300 million refurbishing the Atomic Weapons Establishment in Aldermaston, Berkshire. It is hiring an extra 1,000 scientists and engineers. It has bought a supercomputer capable of three trillion calculations per second and high-powered lasers.

Last month a British plutonium trigger from a Trident warhead was detonated 300m underground at the US nuclear test site in Nevada. The Ministry of Defence said that Operation Krakatau was a test to determine the health of the current British stockpile.

But many analysts say that it is inconceivable that Krakatau was not also part of the US replacement warhead plan. They say that it is further evidence that Britain is deeply involved in the US programme.

Jacob Perea, project manager at Los Alamos, told *The Times* that data from Krakatau, a British-US test, was being used to help the US to work out how to build its new generation of weapons. Although he

said that the project was American, he added: "It would be pretty surprising if they (the British) weren't watching this pretty closely."

This flurry of activity stems from one problem: the generation of nuclear weapons owned by Britain and the US is getting old and has to be replaced. The US has not built a nuclear weapon since 1989 or tested one since 1992. But the Comprehensive Test Ban Treaty forbids the testing of nuclear weapons, so the US wants a generation that does not require testing.

This Reliable Replacement Warhead project alarms many nuclear scientists in Britain and the US. Sidney Drell, a nuclear adviser to US governments for decades, said: "How can you have confidence in a stockpile that has never been tested?" Its critics also argue that the project sends the wrong message when the US is telling "rogue" nations not to develop nuclear weapons.

Britain's Trident system is based on a US design. The missiles are bought from the US. The warheads are built at Aldermaston but in a replica of a processing plant at Los Alamos.

The Reliable Replacement Warhead programme will be debated by Congress this year. If approved, the new weapon should be ready in five years.

John Reid, the British Defence Secretary, was in Washington yesterday for talks. He reiterated that a decision on Trident's future would be made before the end of this parliament, but insisted no decision had yet been made. But Liam Fox, the Shadow Defence Secretary, said that the Reliable Replacement programme would have a direct bearing on Britain. "Once the US goes down a set route, the UK will be forced to follow."

Mike Hancock, a Liberal Democrat member of the Commons Defence Select Committee, which is holding hearings into Trident's future, is convinced that Downing Street is committed to replacing Trident. He said: "Blair does not want to have the debate because (Gordon) Brown does not want to have that debate, because he knows it would be unacceptable to the rank and file."

Many US scientists and politicians fear the US Administration is using the programme to build smaller, lower-yield nuclear weapons for battlefield use without having publicly to say so. After the 9/11 terrorist attacks the White House produced a review that viewed nuclear weapons as pre-emptive weapons that might be deployed in the field of battle.

Dan Plesch, of the Foreign Policy Centre, a London think-tank, told the Defence Select Committee last month: "One conclusion is that the UK has now aligned itself with policies for fighting wars with nuclear weapons and that this is the reality of the 21st century."

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