

Revealed at last: The deadly secrets of Britain's A-bombs

IN THE SUMMER of 1952 a group of senior British generals, admirals and air marshals gathered in extreme secrecy at the Royal Naval College, Greenwich, to discuss Britain's Global Strategy.

In the course of that meeting decisions were taken which were to push this country firmly along the road towards nuclear statehood.

In the five years that followed, Britain carried out a series of atomic tests, which were presented to the public at the time as a carefully planned scientific programme. It is only now, some 30 years later, thanks to the Australian Royal Commission that the true picture of these tests has begun to emerge.

In fact, they were pushed through against a background of mounting concern about the intentions of the burgeoning Russian empire, as a remarkable position paper, prepared for the Australian government, revealed.

'In 1949/50 . . . Russia was considered to be capable of over-running Europe and the Middle East . . . To meet a global war, preparations should be completed by the end of 1953,' said the paper. 'A Moscow-controlled communist-dominated world is the ultimate Soviet aim.' The document clearly envisaged Britain and her allies, if necessary, launching an atomic 'first strike'; war, said the document, 'would probably begin with a full-scale attack by Russia against West Europe and the Middle East, and sea communications, including heavy air attacks on the UK.'

Russia might not use A-bombs first, but whether or not Russia used the atomic bomb, the Allies would undoubtedly launch an all-out atomic attack.

It was against this background that Britain began mapping out its role.

The United States, which had its own testing programme, had not included the British government in its plans, and there was a determination that the Americans should not be in a monopoly position.

The first British demonstration test took place on the remote Australian islands of Monte Bello in October 1952. A copy of the 'Fat Man' A-Bomb dropped on Nagasaki was loaded into an old frigate, HMS Plym, and blown up.

The bomb, according to a witness, looked like a rotary laundry washer. The operation was known as 'Hurricane' and it cost a billion pounds (at today's prices).

The test had one military— as opposed to political— purpose.

The Navy had a recurrent fear that Russia might smuggle

DAVID LEIGH and PAUL LASHMAR report on the Australian Inquiry into Britain's A-Bomb programme, which ended last week, and the light it throws on the origins of Britain's plans to become a nuclear power.

a 'Trojan horse' in the shape of a ship armed with an atomic device into a British port. It wanted to see what the effect might be.

The test also allowed Britain to join an exclusive club of atomic powers. But it was hardly the most stringent exercise, in terms of safety, for those taking part.

We now know that— contrary to reports at the time— contamination drifted over the Australian mainland and that monitoring was inadequate.

More disturbing, there seems to have been deep confusion about what the next stages should be.

The military view was that Russian (or Chinese) aggression should be met by Anglo-US squadrons of atomic bombers from the key western bases—the UK, the Middle East, and Japan.

The British would draw up a list of targets—Russian ports and submarine bases—which particularly threatened this country and could be attacked by V-bombers.

The outcome of this two-way atomic offensive cannot be foreseen, said the document. But it was clearly thought of, in essentially pre-nuclear terms, as a war which could be won.

National suicide

Both sides would suffer devastation, and even if the Russian regime were to collapse as hoped, conventional operations would still have to be undertaken by the Allies.

The military were keen to develop small 'tactical' atom bombs for the RAF and the Navy, to be carried by the Javelin fighter, for example, or to provide the aircraft carrier Hermes with 'a small atomic bomb.'

But Churchill was not enthusiastic, to begin with at least, about building up the vast atomic armoury those plans implied. He preferred to pin his hopes on the United States eventually agreeing to give atom bombs to its vulnerable junior partner.

Lord Cherwell, his scientific adviser, would have none of it. He lobbied strenuously for a major bomb stockpile. He wrote to Churchill saying that to stay out of the emergent industry could amount to 'national suicide.'

The military decided they would need at least 200 atom bombs. That seems to have been an arbitrary figure based on the United States' 1953 target of 400 bombs, but there was one flaw: the plutonium needed for 200 bombs did not exist in Britain.

The Aldermaston research station suggested a solution—

to build relatively cheap dual-purpose reactors which made electricity as well as producing plutonium.

But no one knew whether these Magnox designs, which ran at unusually high temperatures, would make enough plutonium for bombs; hence the next experimental explosion.

In 1953 a test was scrambled together on the Australian mainland as cheaply and quickly as possible to see whether contaminated, as opposed to pure, plutonium could be used to provide the 200 bombs needed.

Officials briefed the Defence Minister, Earl Alexander, on Cherwell's scheme:—

'It is proposed to hold the trial in the Australian desert . . . unless a suitable site can be found nearer home. The purpose of the test is simple. It is to find out how much of the isotope 240 can be tolerated in plutonium used for military purposes and . . . will lead to economies in the long run.'

'The need for carrying out this trial earlier (than planned) is primarily due to the Chiefs of Staff proposal for doubling the production of fissile material.'

That programme was known as 'Totem' and, in the short term at least, it appeared to work. The two test bombs, using cheap contaminated plutonium, went off at about half the power of 'Hurricane.'

The price, however, was high in the longer term; both pilots flying the planes, and the Aborigines living in the desert where the bombs were exploded, suffered widespread contamination.

The test, it is now admitted, was rushed and the weather conditions were unsuitable. A cigar-shaped cloud drifted over an Aboriginal encampment. Two years ago *The Observer* reported Aboriginal descriptions of a 'black mist' at the time, which caused vomiting and blindness.

The Defence Ministry said dismissively: 'Perhaps it was a whirlwind; it couldn't have been fall-out.'

But the Atomic Weapons Research Establishment secretly commissioned two scientists to investigate, and last month the Australian hearings established that the centre of the fall-out cloud did pass over the Aborigines.

There was a strong case for assuming that the 'black mist' did occur, and in the 'worst possible case' they could have been exposed to a dangerous 80 rem dose of radiation.

Pilots were ordered to fly through the cloud collecting samples.

It was much 'hotter' than predicted: one RAF Canberra

was so contaminated that it became unuseable, and health records of one Squadron Leader, R. E. W. Nettley, produced to the commission, reveal that he was exposed to an unforeseen 11½ hours of radiation.

Air Vice-Marshal Daley of the RAAF wrote a rancorous letter of complaint.

'We were firmly told this was not a hazard . . . It does appear that there was a hazard . . . It would seem that this service is not informed sufficiently of the hazard its own personnel may undergo.'

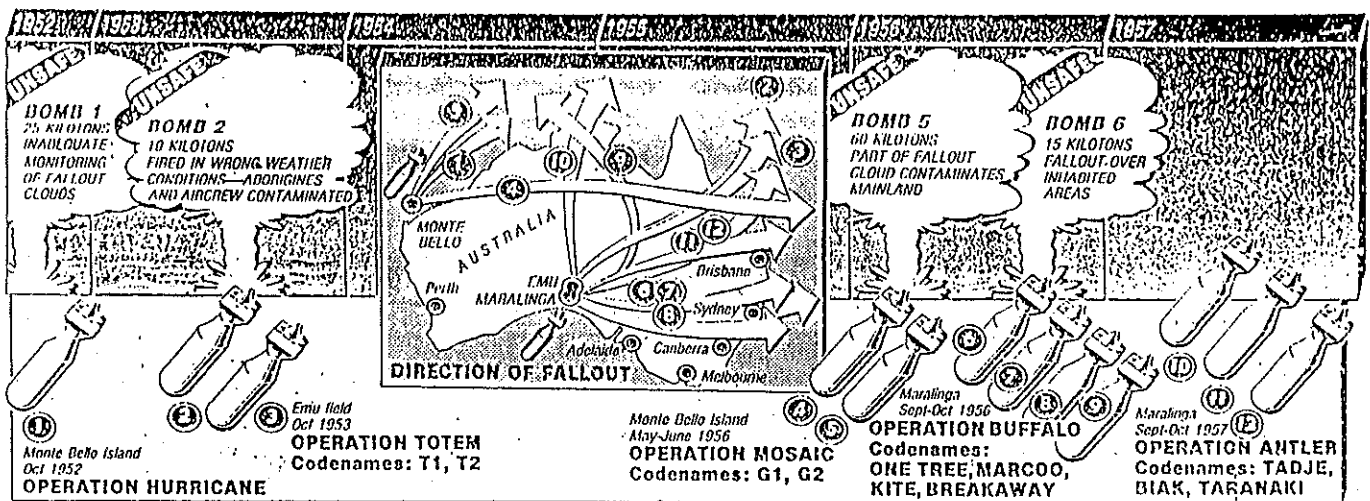
Just as the plutonium production-line got the go-ahead, and Aldermaston started design work on 'light bombs' for the military, the whole strategic picture changed again.

The US H-bomb explosion of 1952 had already made the Chiefs of Staff's ideas about 'atomic wars' obsolete, although they were slow to realise it.

In 1954 Churchill and his Cabinet decided Britain should have H-bombs too, to maintain

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her status as a 'world power' — and perhaps, once again, try to impress the United States and persuade it to share technology.

Rapid new tests were improvised for Australia. This 'Mosaic' series was presented to the Australian public as A-bomb tests, although they were in fact 'boosted' bombs aimed to see if Britain could get a thermonuclear fusion effect.

Mosaic G1 showed that the 'booster' worked. It was only 15 kilotons, but some fall-out drifted over the mainland. The testers went ahead with a much bigger version, G2, although witnesses last month agreed it may not have been scientifically necessary.

The weather went wrong,

and with an unexpected wind-shift, more fall-out drifted over Australia from the surprisingly large 60 kiloton blast (its size was kept from the Australians).

The first big test, scheduled for a new permanent site at Maralinga, was 'Operation Buffalo,' in September and October 1956.

One purpose of the test was to develop 'Red Beard' strategic atom bombs. Four bombs were exploded, with different yields at different heights including a light tactical weapon.

Some 250 Servicemen from Commonwealth countries were formed into an 'indoctrination force,' placed four and a half miles from a 1.5 kiloton blast and tested to see their reaction.

Four officers were placed in tanks some hundreds of yards from the second 15 kiloton blast.

The first explosion, called 'One Tree,' was shown to have been fired in unsafe conditions. Asked last Monday if fall-out from 'One Tree' reached Coober Pedy, the centre of the Australian population involved on opal mining Lord Penney, director of the project, replied: 'Yes; not many people, though, were there.'

Lord Penney also agreed that the second major trials at Maralinga, 'Operation Antler,' in September/October '57 was 'needed to confirm understanding of the triggering mechanism for high thermonuclear explosions conduc-

ted at Christmas Islands.'

The British exploded their first H-bombs at Malden Islands, in the South Pacific, in May of that year. Further H-bomb tests were lined up for the next year.

Although no further big tests took place in Australia, minor trials continued to be carried out until 1963.

They were called Kittens, Tims and Rats. They consisted mainly of testing A-bombs and their components for safety. Would an A-bomb explode, for example, if the aircraft carrying it crashed and caught fire?

During those tests large quantities of radioactive and toxic materials were released into the open at Maralinga. Little was recovered.

Scientists from the trials could not remember how many trials took place. One put the number of 'Tims' at between 40 and 130.

By careful cross-checking of documents we have established that some 6,300 curies of highly radioactive polonium 210 was scattered on the test sites in mainland Australia.

Some of the worst of the radioactive debris on Maralinga was dug up and taken away during Operation Brumby in 1967, after Australian protests.

Much, however, still remains. And it is possible as a result of the commission's finding that the British Government will have to pay for a very expensive clean-up operation.