Sunday Herald - 24 April 2005

how we lied our way into the nuclear club

By Trevor Royle

EVERY military commander wants a bigger bang for the available bucks. Not only do the resulting pyrotechnics raise the spirits of those pulling the trigger, but they do an awful lot of damage to those on the receiving end. Most big bangs come as a result of massively expensive scientific development, and the ability of the military to convince politicians that they really do need their shiny new toys, but there are times when subterfuge can do the business.

In 1957, Britain exploded its first set of hydrogen bombs (H-bombs) near Christmas Island, a hitherto blameless atoll in the Pacific which was the site of Operation Grapple, a top-secret exercise to keep Britain in the nuclear club. A good result was desperately needed as it would show the world that Britain still had the cojones to remain a world power. It would also mend fences with the US in the year after the disastrous Suez campaign which saw transatlantic relations fall to an all-time low.

The first bomb exploded spectacularly but the yield was desperately disappointing as its potency was not much greater than the bombs dropped on Japan 12 years earlier. Such an outcome was completely unacceptable. It represented a colossal waste of development money and could have been a massive blow to the country's international prestige at a time when national morale was rock-bottom. Fortunately, the scientists had a trick up their sleeves. Before testing the second hydrogen bomb they dropped a so-called "stop-gap device" code-named Orange Herald - which was basically a monster atomic bomb cobbled together from existing stocks in much the same way that a child might put elastic bands round a bunch of bangers to get a more satisfying thud on Guy Fawkes night.

To everyone's delight, the stop-gap device did its stuff and a great British triumph was trumpeted to the world. The massive mushroom cloud over the Pacific demonstrated that Britain was still a great power but, as nuclear historian Dr Eric Grove discovered, recent confidential documents show that it was all a massive deception.

"Orange Herald was probably the biggest fission explosion ever; it went off with a yield of 700 kilotons, almost three-quarters of a megaton," he says. "This was a very big bomb indeed. In a sense it might as well have been an H-bomb. It's a much bigger explosion than any H-bomb we have today, in British service at least. So this was a spectacular thing and observers went away confident that Britain now had the H-bomb."

Not even the crew of the Valiant bomber, which dropped the device, knew the truth. From the intensity of the explosion it looked like a new weapon - that was the way the government wanted to play it - and Orange Herald went into RAF service the following year as Britain's first front-line H-bomb. The ruse was kept top secret. When a Daily Mail journalist uncovered the truth the government ordered the news paper's publishers to drop the story as the exposure would "not be in the national -interest". The story has emerged only now, with the publication of these documents.

And at the time there was a lot at stake. As the 1950s drew to a close Britain was coming to the unwelcome conclusion that it had to tailor its defence policy to the available cash. Cutbacks were the order of the day and, in the same year that Orange Herald persuaded the world that Britain was a super-power, the Conservative government's defence review announced radical changes to the armed forces including the end of National Service, heavier reliance on missiles and a sharp reduction in overseas garrisons.

In this brave new world there would be a greater need for up-to-the-minute technology: which meant getting back into bed with the Yanks. Some heavy seduction would be needed, too, because in 1957 relations between London and Washington were not even at the holding hands stage. The year before , President Dwight D Eisenhower had accused the British of breaking international law by trying to effect a regime change in Egypt - together with France and Israel, British forces had attacked the Suez Canal in a doomed attempt to unseat President Nasser. Ever since that falling-out it had been more freeze than squeeze and Prime Minister Harold Macmillan's government was determined to get things going again.

Hence the importance of the Christmas Island deception. In charge of all things nuclear in Washington was Admiral Hyman Rickover, described by British intelligence as "an introvert iconoclast from the Ukraine" who hated all things British. As head of the US Navy's nuclear sub marine programme he had been determined to block the export of nuclear technology to Britain. Two things changed all that. Rickover might have been contemptuous of his allies, but he was a sucker for royalty: a handy failing as Britain's First Sea Lord was Earl Mountbatten, a grandson of Queen Victoria. Backed by the impressively powerful tests in the Pacific, Mountbatten managed to persuade Rickover that we would all be much better off in the same bed; the US nodded in agreement and approved the transfer of technology for the propulsion unit of the Royal Navy's first nuclear submarine, the Dreadnought.

Having developed a pretend H-bomb Britain went on to develop the real thing in great haste as an international ban on testing was only months away. Next time round, US observers were present at Christmas Island and the new weapons proved to be a thumping success. The tests also contained the seeds of controversy. To save money and time the bomb was dropped just off the atoll and the ground crews were forced to watch as it exploded at 8000 feet. Although they were ordered to take the dubious precaution of rolling down their shirt sleeves and covering their eyes with their hands, the explosion left a lasting effect. One RAF man remembered that the experience was "like someone passing a five-bar electric fire close to your back then moving it away". Another thought the fireball "almost beautiful", while everyone was shocked by the unexpected after-blast which tore down trees and sent people spinning in its wake.

Later, service personnel wondered if their attendance at the bomb site had been as safe as the authorities promised and, latterly , a number of ex-services personnel alleged that they had been exposed to undue amounts of radioactivity which led to cancers and other illnesses. Still, as nuclear expert Professor John Bayliss of Swansea University argues, after the Orange Herald ruse Britain finally had its weapon of mass destruction, the test demonstrating to the US "that we were capable of developing weapons of that magnitude".

However, as in every deal, nothing is for nothing. In return for sharing nuclear secrets with their allies, the US insisted that the new British bomb be discarded in favour of their own version. To the shock of the scientists who had spent millions of pounds developing a real thermo-nuclear device, all the hard work on Christmas Island counted for nothing. When the new weapon went into RAF service, the government maintained the fiction that Britain had an independent nuclear deterrent but, as Dr Grove explains, it was all a hoax: "It was a key point that had to be kept secret - the fact that we were using an American design. People might have said, had they known, 'How independent is this? It's only a copy of an American bomb. Where is the independence? Where is the prestige?'"

The new relationship also spelled doom for Britain's nuclear V-bombers, another expensive and highly controversial initiative. The force was created in the early 1950s to provide the RAF with big four-engined jet bombers capable of hitting targets in the Soviet Union with freefall nuclear bombs. Warning of an impending enemy attack came from the Fylingdales radar station in Yorkshire and it gave the bombers exactly four minutes to get airborne, which meant that the quick reaction alert squadrons had to be on high alert 24 hours a day, 365 days a year: a procedure they maintained for more than 15 years. But when the country's nuclear deterrent was switched to submarine-launched Polaris missiles, a further result of the US deal, there was no place for the V-bombers. The workhorse Valiant, which dropped the Christmas Island bombs, was scrapped, the beautiful delta-winged Vulcan was given a conventional role while the futuristic Victor became an airborne fuel tanker.

With the V-bombers went the last of the dirty little secrets surrounding the post-war development of Britain's super-weapons. Although it was never revealed at the time for fear of damaging morale, the bombers did not carry enough fuel to hit their target and then return to base, which meant that pilots were on a one-way ticket to eternity. Not that such a detail is likely to have worried the crews, since they'd have expected to be returning to a country destroyed by Soviet nukes .

One pilot was simply advised to "keep going east and settle down with a large Mongolian woman". The crews' on-board safety was also an afterthought. While the pilot and co-pilot had ejector seats, the three electronic warfare crew had to take their chances with their parachutes. Not that the pilots got off easily. Following the attack run they had to face the inevitable blinding nuclear blast. Their protection? Each pilot wore a single eye-patch which meant that he could use his good remaining eye for flying the bomber out of the area. It was a fitting metaphor for the secretive and duplicitous development of Britain's nuclear weapons - in the country of the blind the one-eyed man really was king.

Britain's Cold War Super Weapons is on Channel 4 today at 5.25pm

---

Back to previous page