THE BRITISH BOMB: Part 4

Digging up the nuclear past

DUNCAN CAMPBELL examines the archaeological evidence of bomb factories

THE PRODUCTION, storage and maintenance of nuclear weapons is one of the largest post-war industrial developments. Material for an archoeology of nuclear weapons is widely scattered throughout the country.

One of the most remarkable of such sites is Faldingworth, near Lincoln, formerly an RAF base and the biggest nuclear store in Britain. With extreme security measures still intact, it has since 1973 been in the hands of a little-known Swiss-owned armaments company, the British Manufacture and Research Company. The company says it now manufactures only conventional weapons — aircraft cannon and ammunition —at this site. But security levels remain more in keeping with nuclear weapons, with electronic movement detectors, dozens of television cameras and round-the-clock guards.

Faldingworth, colloquially known to its RAF staff as 'Stalag Luft 13', was one of two original nuclear bomb dumps built in great secrecy during the 1950s. The prison camp nickname came from the extraordinary features of both sites — triple fences, electric gates, and watchtowers at each corner, with floodlights, searchlights and armed guards. Each base was designed to hold about 70 atomic or hydrogen bombs.

The second is at Barnham, a tiny village south of Thetford in Norfolk, and is an enticing example of the conversion of swords to ploughshares. The buildings formerly used to store, test and assemble Britain's first nuclear weapons were sold off after the base closed in 1965, and are now an industrial estate. The essential features of the nuclear store are nonetheless preserved, giving a fine insight into the technology of nukes. The site consists of three giant hangars for storing the bomb, and three plantations of small sheds the size of WCs in which the fission cores of the bombs were stored. Each shed has a steel door with combination lock, and lightning conductors to avert an accidental explosion. One of the highly classified features of the bomb — the diameter of its spherical fission core — can be measured from the size of the concrete cylinder which held it. It is a mere 16 inches across.

To assemble a bomb, the core would be picked up on a hand trolley, and taken to a central assembly building to be matched with its body. Whenever a fission trigger was moved, a klaxon would sound, and everyone on the site would have to freeze motionless — or risk being shot. Once assembled, the bomb was shipped out past numerous security checks to the airfield wanting the weapon.

In the 1960s, Faldingworth was greatly extended with new storage bunkers, and a third major site was built at Machrihanish near Campbeltown in southwest Scotland.

Britain's Ministry of Defence is reluctant to expose its nuclear weapons to view. The US sees things differently; at Kirtland Air Force Base in New Mexico, near the original Los Alamos atomic laboratories (see left) there is a display of the 'world's largest nuclear weapons collection.

Above shows a section concerned with 'Advances in Technology'; from the bottom left is a B53 H-Bomb and its core, and W-53 warhead which is used for the Titan missile. Behind is the B28 H-Bomb — four of these monster 24 Megaton yield weapons are the normal load for B52s which deploy to and from Britain. More modern weapons are on the right; from the front, a B61 Bomb (with parachute), then a B43 Bomb and a Walleye TV-guided nuclear missile. In the corner, opposite the sign, a W58, one of three 150KT (ten times Hiroshima) warheads carried on Polaris missiles. British A and H-Bombs are very similar in shape and size to the B61 and B43s.

The US has now produced 86 different basic types of nuclear warhead. The latest, a W86 for a Lance missile, explodes *underground*. Neutron bombs, W70 and W78s, have been in production for two years as a so-called 'option'.

Machrihanish is still a major RAF nuclear weapons site. Faldingworth was well known to local farmers as the V-Bombers bomb store, although it was disguised as a 'maintenance unit' and had no public telephone number. It is conveniently placed for the two major bomber bases still in current use, Scampton and Waddington, near Lincoln.

Although the storage bunkers and watchtowers are prominent at both Barnham and Faldingworth, the MoD still deny all knowledge of using the sites after the second world war. Faldingworth, they claimed, had 'nothing at all' since wartime Lancaster bombers left there in 1948.

NUCLEAR MANUFACTURING sites are similarly non-existent. The recent Defence White Paper lists of government-run Royal Ordnance Factories carefully exclude any reference to the ROFs at Burghfield, near Reading, and at Cardiff. Both factories are solely concerned with making nuclear weapons. A recent report by the Health and Safety Executive confirms that the Cardiff ROF does handle and assemble radioactive bomb components. Both factories are authorised to discharge alpha-radiation emitters into local sewers (Cardiff) or the River Thames (Burghfield). These come from the plutonium and uranium used to make bombs.

A private company, Hunting Engineering, also has a major although hitherto undisclosed role in nuclear weapons manufacture. A cluster of factories at Ampthill, near Bedford, are used to make most of the bomb components, leaving the Royal Ordnance Factories to attach the nuclear explosives. The connection is an old one, as Hunting's predecessor, Percival Aircraft, was included very early on in the A-bomb design team. Percival designed and built the casings for the first British bombs. Hunting Engineering still has a 'trials unit' at the Farnborough Royal Aircraft Establishment, which co-operates with the 'Special Weapons' (i.e. nuclear) division at Farnborough in the design and construction of nuclear bombs. The Hunting Group has very close military connections, and even runs airfields — such as RAF Northolt — instead of service personnel. The Group is known to produce many of the less attractive military weapons, including cluster, anti-personnel, and napalm bombs. □