WORLD WAR TWO (WWII) BOMBING

WWII bombing raids in the UK began in summer 1940. Bombing densities increased towards major cities, coastal towns, cathedral cities, or areas with strategic targets such as docks and harbours, industrial areas, and airfields.

German bombing campaigns extensively used High Explosive (HE) bombs. 50kg and 250kg HE bombs were most common, although 500kg and larger sizes were also used. Not all HE bombs were intended to explode on impact and some had timing mechanisms where detonation could occur over 70 hours after impact.

Incendiary Bombs (IBs) were dropped in large numbers, typically alongside HE bombs, to start fires to cause damage and hinder repair efforts. They ranged from small 1kg IBs to 250kg and 500kg Oil Bombs (OB). Some IBs were fitted with bursting charges or steel noses to cause additional damage.

Anti-Personnel (AP) bombs and Parachute Mines (PMs) were also deployed. AP bombs were 1kg and 2kg and could inflict damage up to 150m away. PMs could be up to 4m long and were typically detonated either magnetically or by noise/vibration. Anti-shipping PMs were commonly dropped over navigable rivers, dockland areas, and coastlines.

In 1944, use of the Flying Bomb (V1), a pilotless guided missile, and the Long-Range Rocket (V2), a ballistic missile rocket, began. They travelled at high speeds to avoid detection and caused significant damage on impact.

50kg and 500kg HE bombs

1,000kg magnetic PM

Luftwaffe Dornier bomber aircraft on a bombing raid over Woolwich Arsenal, 7th September 1940

Defuzing of UXB in WWII

WWII bomb targeting could be inaccurate, especially in the first year of the war, and bomb loads could fall significantly off target. Bomb loads were also dropped in 'tip and run' raids, where crews would drop their bombs to avoid Anti-Aircraft (AA) fire or Allied aircraft, on route to or from the intended target.

Urban areas typically had systems for reporting bomb incidents and dealing with Unexploded Bombs (UXB). In more rural areas where fewer bombing raids occurred, it is known that Air Raid Precaution (ARP) records under-represent the number and frequency of bombs falling. However, it was possible for bombs to be unrecorded or recorded poorly in any area.

Of the ~75,000No. tons of bombs dropped on Britain in WWII, an estimated 11% of them failed to detonate.

Hazard

Whether a UXB hazard exists on a site will depend on various factors: whether the Site was bombed, how heavy the raids in the area were and what were the raids targeting, and the potential for a UXB impact to have been missed or have gone unrecorded.

On any site the potential for UXBs cannot be totally discounted, and therefore it is essential that detailed local bombing records are obtained when assessing a UXB hazard.

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