Defective Anti-Aircraft Fire in WWII – David Gray

British anti-aircraft (AA) artillery caused significant civilian casualties during the Blitz, with some estimates suggesting friendly fire from falling shrapnel and unexploded shells caused up to 50% of casualties during certain bombing raids.

While thousands of German aircraft were engaged, heavy shells often fell back to earth, killing residents, though this was largely kept from public knowledge at the time to maintain morale.

Key Aspects of AA Casualties During the Blitz:

- High Casualty Rates: Some sources indicate that in some raids, shells from British anti-aircraft guns caused as many casualties as German bombs.
- "Rain of Steel": Shrapnel from the 80 lb (36.3 kg) shells and sometimes unexploded shells often fell into residential areas.
- Defective Timing: Many shells had faulty fuses, causing them to detonate at ground level rather than in the air.
- Psychological Morale: Despite the danger, the government, including Churchill, ordered heavy barrages because the noise was reassuring to the public.
- Initial Underreporting: The true extent of these casualties was often omitted from records to project a "Blitz spirit" and not show the army killing its own citizens.

While total civilian deaths during the Blitz were approximately 40,000–43,000, a significant portion of these were caused by this "friendly fire". However, other analyses note that for many, these guns were a necessary defence, and casualties from them were often less than the destruction caused by the enemy's bombs.

First World War Context

During the First World War, heavy artillery used to defend London against zeppelins and Gotha bombers also caused civilian deaths, with one 1917 incident recording 10 civilians killed by British artillery fire.

Extent of Casualties

Estimates regarding the exact number of deaths caused by British artillery vary significantly due to inconsistent reporting at the time. Some historians, such as Simon Webb, argue that as many as half of all civilian air raid casualties (potentially over 25,000) may have been caused by British artillery rather than German bombs. While some figures are debated, specific tragedies are well-documented:

- Kings Cross (Sept 1940): An AA shell landed outside a café near Kings Cross, killing 17 people.
- Lee-on-Solent (Sept 14th 1940): A shell from HMS Daedalus, Portsmouth, struck a hotel dining room, killing 10 members of the Women's Royal Naval Service.
- Tividale (Dec 1940): An 80lb shell fell down a chimney during a wedding, killing the bride and 11 guests.
- South Wales (March 1944): A single shell exploded in a factory, killing 12 people.

Causes of Friendly Fire

It is estimated that 10% to 30% (and by some accounts up to 50%) of British AA shells had defective timing mechanisms. Instead of exploding at high altitudes (approx. 20,000ft), these shells fell back to earth and detonated on impact in populated streets. Even when shells functioned correctly, they rained down thousands of heavy metal fragments and nosecones at lethal terminal velocities.

The "barrage" of anti-aircraft fire was often indiscriminate in the dark, particularly in London, where gunners were given a "free hand" to fire at will, leading to what was described as "wild and uncontrolled shooting". To reassure the public, Prime Minister Winston Churchill ordered massive "morale" barrages. These involved firing thousands of shells even when there was a low chance of hitting an aircraft, significantly increasing the volume of metal falling on cities.

3.7” Anti-Aircraft Barrage

Contemporary Awareness

These deaths were not entirely secret; they were frequently reported in National and Provincial Newspapers during the war despite censorship. However, after 1945, the narrative of the Blitz shifted

to focus almost exclusively on German aggression, causing the scale of friendly fire casualties to be largely forgotten.

During the Blitz, the defence of London and other British cities relied on a combination of heavy artillery and psychological management to keep the population from panicking.

Key Anti-Aircraft Weapons

The British "Inner Artillery Zone" (IAZ) in London was packed with diverse weaponry, ranging from repurposed naval guns to modern rapid-fire cannons:

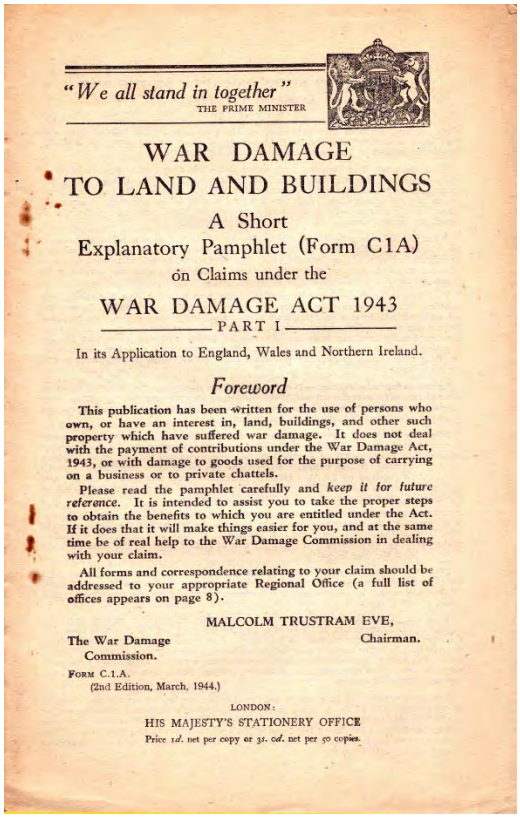
- QF 3.7-inch Heavy AA Gun: The mainstay of British air defence, roughly equivalent to the German 88mm. It fired 28lb shells at a rate of 10–20 rounds per minute and could reach altitudes of over 30,000 feet.
- QF 4.5-inch Heavy AA Gun: Often adapted from naval use, these powerful guns fired 55lb shells. They were common in fixed batteries like the one at Chadwell Heath, which could fire up to 64 rounds per minute collectively.
- 5.25-inch Naval Guns: Massive battleship-style turrets were installed in locations like Primrose Hill. These fired enormous 80lb shells.
- 40mm Bofors: A light anti-aircraft gun used for low-altitude defence.
- Z-Batteries (Rocket Projectors): Introduced in late 1940, these fired 3-inch or 3.7-inch rockets. While spectacular to watch, they were primarily used for area saturation rather than precision.

Government Management of Morale

The British government prioritised the *appearance* of a defence over its actual effectiveness to prevent a "disorderly general flight" from the cities. Early in the Blitz, Londoners complained that the silence of the night was more terrifying than the bombs because it felt like they were defenceless. In response, Winston Churchill ordered an immediate, massive increase in anti-aircraft fire. Even if the guns hit nothing, the noise provided a "reassurance" that the military was fighting back.

The Ministry of Information's Home Intelligence unit and Mass-Observation clandestinely monitored public morale. While the press reported specific "friendly fire" incidents, the overall scale was often downplayed or attributed to the "unavoidable cost of defence".

Home Secretary Herbert Morrison (above) famously dodged parliamentary questions in 1943 regarding the exact number of "friendly fire" deaths. Consequently, many of these deaths were either kept from the public eye or attributed to German bombs.



"We all stand in together"
THE PRIME MINISTER

WAR DAMAGE
TO LAND AND BUILDINGS

A Short
Explanatory Pamphlet (Form C1A)
on Claims under the
WAR DAMAGE ACT 1943
PART I

In its Application to England, Wales and Northern Ireland.

Foreword

This publication has been written for the use of persons who own, or have an interest in, land, buildings, and other such property which have suffered war damage. It does not deal with the payment of contributions under the War Damage Act, 1943, or with damage to goods used for the purpose of carrying on a business or to private chattels.

Please read the pamphlet carefully and *keep it for future reference*. It is intended to assist you to take the proper steps to obtain the benefits to which you are entitled under the Act. If it does that it will make things easier for you, and at the same time be of real help to the War Damage Commission in dealing with your claim.

All forms and correspondence relating to your claim should be addressed to your appropriate Regional Office (a full list of offices appears on page 8).

MALCOLM TRUSTRAM EVE,
Chairman.
The War Damage Commission.

FORM C.1.A.
(2nd Edition, March, 1944.)

LONDON:
HIS MAJESTY'S STATIONERY OFFICE
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Although on the face of it the Government were reticent, to say the least, regarding casualties from anti-aircraft fire, officially, they had to face up to their responsibilities. Whilst researching for this article I came across this government pamphlet (*left*), which directly addresses the issue.

The document is entitled "**War Damage to Land and Buildings**" and covers the "**War Damage Act 1943**." This version was published in July 1944, by which time the Luftwaffe had practically ceased to fly over Britain, let alone bomb it. However, the V1 flying bombs started coming over just a month before in June and continued until October. Anti-aircraft guns were still used to counter these weapons although aircraft such as the Spitfire, Hawker Tempest and the new Meteor jet fighter also played a part in shooting them down.

Interestingly, even though this is an official Government document, the publisher has placed one of Churchill's exhortations at the top "*We all stand together*." This has pushed the Royal coat of arms to one side which is unusual to see.

The relevant section in this document appears below:

War damage is damage directly resulting from acts by or against the enemy (for instance, damage caused by an enemy aircraft or by an anti-aircraft shell).

Clearly, the Government was facing up to the collateral damage caused by anti-aircraft shells falling to earth. They recognised that it was an issue and had taken steps to ensure people could at least gain compensation for damage caused.

"London Can Take It": This slogan was popularised to frame civilian endurance as a form of active heroism, distracting from the technical failures of the AA defences, which initially shot down very few German aircraft. To boost manpower and public engagement, women of the Auxiliary Territorial Service (ATS) were integrated into "Mixed" AA batteries which were started in 1941, performing every role except actually pulling the trigger.